

UNIVERSITY OF ILLINOIS AT
CHICAGO

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OFFICIAL YEAR BOOK OF THE COMMONWEALTH
OF AUSTRALIA.

Australia
COMMONWEALTH BUREAU OF CENSUS AND STATISTICS,
CANBERRA.

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no. 36
1944-45

OFFICIAL

YEAR BOOK

OF THE

COMMONWEALTH OF AUSTRALIA

No. 36.—1944 and 1945.

Prepared under Instructions from
The Right Honorable the Treasurer,

BY

ROLAND WILSON, C.B.E., B. Com., D. Phil., Ph. D.,
COMMONWEALTH STATISTICIAN.



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28 Oct 69

PREFACE.

By the Constitution of the Commonwealth of Australia, the Parliament of the Commonwealth is empowered "to make laws for the peace, order, and good government of the Commonwealth, with respect to Census and Statistics." In the exercise of the power so conferred, a "Census and Statistics Act" was passed in 1905, and in the year following the "Commonwealth Bureau of Census and Statistics" was created. The first Official Year Book was published early in 1908. The publication here presented is the thirty-sixth Official Year Book issued under the authority of the Commonwealth Government.

The synopsis on pp. ix. to xxv. immediately following shows the general arrangement of the work. The special index (following the usual general index) provided at the end of the volume, together with certain references given in the various Chapters, will assist in tracing in previous issues special articles and other more or less important miscellaneous matter which, owing to limitations of space, have been omitted or are not printed fully in the present volume.

Economic and financial conditions during recent years have caused a demand for new information, or information expressed in new terms, concerning many matters of finance, trade, prices, production and population, and some progress has been made in the later volumes towards bringing closer to present day requirements the Chapters dealing with these branches of statistics, while a diary of the principal financial and economic events of the years 1939 to 1945 is inserted after the last chapter.

Certain statistics, chiefly in the Chapters respecting "Transport and Communication", "Trade" and "Mineral Industry", which, owing to censorship provisions, were omitted during the war period, have been included in this issue. The "Defence" Chapter which was omitted from the last two issues reappears in this issue and contains much new matter concerning the 1939-45 War.

It is not proposed to refer here to the whole of the new matter or to the new treatment of existing matter incorporated in the present volume, but attention may be drawn to the following:—

- Chapter V. Transport, etc.—War-time Control of Shipping (pp. 121-130); Motor Omnibus Passenger Services (pp. 153-155); Ferry (Passenger) Services (pp. 155, 156); Petrol Rationing (pp. 160-163).
- Chapter VI. Education.—Commonwealth Technical Training Scheme (pp. 206, 207); Commonwealth Reconstruction Training Scheme (pp. 207, 208);
- Chapter VIII. Public Benevolence, etc.—Commonwealth Unemployment and Sickness Benefits, Hospital Benefits Act, Tuberculosis Act and Pharmaceutical Benefits Act (pp. 252-254).
- Chapter XII. Trade.—Mutual Aid between Canada and Australia (pp. 336-338).
- Chapter XV. Vital Statistics.—Fertility Rates and Gross and Net Reproduction Rates (pp. 519-521); Fertility of Marriages (pp. 521, 522); True Death Rates (pp. 536, 538).
- Chapter XVI. Local Government.—Roads and Bridges—New Tables on financial operations (pp. 583-590).
- Chapter XVII. Private Finance.—Particulars of Commonwealth Bank Act 1945 and Banking Act 1945 (pp. 623-629); Particulars of Life Insurance Act 1945 (pp. 650-652).
- Chapter XIX. Pastoral Production.—Production and Disposal of Beef and Veal (p. 757) and Mutton and Lamb (pp. 761, 762); Australian Wool Realization Commission (pp. 767-770).
- Chapter XX. Agricultural Production—Wheat Industry Stabilization Plan (pp. 784 and 789); Production and Disposal of Wheat (p. 794); Australian Potato Committee—Receipts and Disposals of Potatoes (p. 816); Production and Consumption of Onions (pp. 817, 818); Vegetables for Human Consumption (pp. 838-840).

- Chapter XXI. Farmyard, Dairy, etc.—Number of Dairy Cattle (p. 858); Production and Disposal of Butter and Cheese (p. 863), Pork and Bacon and Ham (pp. 864, 865), and Shell Eggs (pp. 868, 869); Production of Egg Powder (p. 869).
- Chapter XXVII. Defence.—An account of the Growth and Activities of the Defence Forces during the 1939-45 War together with Statistics of Personnel, Casualties and Awards and Decorations (pp. 1016-1036); an account of the activities of the Departments of Munitions and Aircraft Production (now Munitions) during the war years (pp. 1037-1073); War Gratuity 1939-45 War (p. 1073).
- Chapter XXVIII. Miscellaneous.—Clothing and Food Rationing (pp. 1084-1090); The United Nations (pp. 1114-1116); Rent Control (pp. 1116-1118); Directorate of Housing (pp. 1118, 1119).

The material in the Year Book has been carefully checked throughout, but I shall be grateful to those who will be kind enough to point out defects or make suggestions.

The delay in publication of this volume, while regrettable, has been unavoidable. Compared with the previous volume, however, the figures have been advanced in some Chapters by three years and in others by two.

Later information which has been compiled since the various Chapters were sent to press has been incorporated in the Appendix (p. 1143) which is much more comprehensive than in previous issues. Opportunity has been taken therein to advance as far as possible, in summarized form, the more important statistics of the foregoing chapters. In many cases information has been extended to 1946.

My thanks are tendered to the State Statisticians, who have collected and compiled the data on which a great part of the information given in the Official Year Book is based. Thanks are also tendered to the responsible officers of the various Commonwealth and State Departments, and to others who have kindly, and often at considerable trouble, supplied information; special mention should be made of the services of the Chief Draftsman of the Property and Survey Branch, Department of the Interior, who was responsible for the drawing of the graphs throughout this volume.

An expression of keen appreciation is due in respect of the valuable work performed by Mr. S. H. Begley, Editor of the Official Year Book and by Mr. J. M. Jones, B.A., Assistant Editor, and of the services rendered by the officers in charge of the several sections of the Commonwealth Bureau of Census and Statistics, upon whom has devolved the duty of revising the Chapters relative to their respective sections.

ROLAND WILSON,
Commonwealth Statistician.

COMMONWEALTH BUREAU OF CENSUS AND STATISTICS,
Canberra, A.C.T., May, 1947.

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STATISTICAL SUMMARY.

STATISTICAL SUMMARY, AUSTRALIA.

Heading		Years.							
		1881.	1891.	1901.	1911.	1921.	1931.	1941.	1944.
Population(a)	Males	1,247,059	1,736,617	2,004,836	2,382,232	2,799,462	3,332,577	3,592,862	3,675,835
	Females	1,059,677	1,504,308	1,820,077	2,191,554	2,711,532	3,220,029	3,539,771	3,656,866
	Persons	2,306,736	3,240,985	3,824,913	4,573,786	5,510,994	6,552,606	7,132,633	7,332,701
Births	No.	80,004	110,187	102,945	122,193	136,198	118,509	134,525	153,344
	Rate	35.26	34.47	27.16	27.21	24.95	18.16	18.95	21.02
Deaths	No.	33,327	47,430	46,330	47,869	54,076	56,560	71,176	69,596
	Rate	14.69	14.84	12.22	10.66	9.91	8.67	10.02	9.54
Marriages	No.	17,244	23,862	27,753	39,482	46,869	38,882	75,148	68,201
	Rate	7.60	7.47	7.32	8.79	8.59	5.96	10.58	9.35
		1881-82.	1891-92.	1901-02.	1911-12.	1921-22.	1931-32.	1941-42.	1944-45.
Agriculture—									
Wheat	Area '000 acs.	2,996	3,335	5,116	7,428	9,719	14,741	12,003	8,463
	Yld. '000 bus.	21,444	25,675	38,562	71,636	129,089	190,612	166,713	52,880
	Av. Yld. bus.	7.16	7.70	7.54	9.64	13.28	12.93	13.89	6.25
Oats	Area '000 acs.	195	246	461	617	733	1,085	1,460	2,034
	Yld. '000 bus.	4,796	5,726	9,790	9,562	12,147	15,195	22,302	8,970
	Av. Yld. bus.	24.62	23.27	21.22	15.50	16.56	14.00	15.27	4.41
Barley	Area '000 acs.	75,864	68,068	74,511	116,466	298,910	342,396	784,253	613,944
	Yld. '000 bus.	1,333	1,179	1,520	2,057	6,086	6,291	18,004	5,029
	Av. Yld. bus.	17.84	17.31	20.40	17.66	20.36	18.37	22.96	8.19
Malze	Area '000 acs.	165,777	284,428	294,849	340,065	305,186	269,448	301,360	256,955
	Yld. '000 bus.	5,726	9,262	7,035	8,940	7,840	7,062	7,436	6,463
	Av. Yld. bus.	34.54	32.56	23.86	26.29	23.69	26.21	24.67	25.15
Hay	Area '000 acs.	768	942	1,688	2,518	2,995	2,635	2,758	2,409
	Yld. '000 tons	767	1,067	2,025	2,868	3,902	3,167	3,575	1,994
	Av. Yld. tons	1.00	1.13	1.20	1.14	1.30	1.20	1.30	0.83
Potatoes	Area acs.	(b) 76,265	112,884	109,685	130,463	149,144	145,111	99,324	241,803
	Yld. tons	(h) 243,216	380,477	322,524	301,489	388,091	397,102	332,727	881,049
	Av. Yld. tons	(b) 3.19	3.37	2.94	2.31	2.60	2.74	3.35	3.64
Sugar-cane	Area '000 acs.	19,708	45,444	86,950	101,010	128,350	241,576	254,564	226,423
	Yld. '000 tons	350	738	1,368	1,682	2,437	4,213	5,154	4,598
	Av. Yld. tons	17.74	16.23	15.73	16.65	18.09	17.44	20.25	20.31
Vineyards	Area acs.	14,569	48,882	63,077	60,602	92,414	112,961	129,739	128,881
	Wine '000 gal.	1,438	3,438	5,262	4,975	8,543	14,191	16,045	14,419
Total net value all agricultural production		£'000 (d) 15,519	(d) 16,988	(d) 23,835	(d) 23,774	(d) 81,890	49,714	62,133	71,689
Pastoral, dairying, etc.—									
Live-stock	Horses '000	1,088	1,585	1,620	2,278	2,438	1,776	1,611	1,359
	Cattle " "	8,011	11,112	8,491	11,829	14,441	12,261	13,561	14,133
	Sheep " "	65,093	106,421	72,040	96,886	86,119	100,619	125,189	105,371
	Pigs " "	703	846	931	1,111	960	1,168	1,477	1,631
Wool production(e) '000 lb.		319,649	634,046	530,395	798,391	723,059	1,007,456	1,167,159	1,017,543
Butter " "		(f)	(g) 42,315	(g) 103,747	(g) 212,074	(g) 267,071	391,249	375,494	317,997
Cheese " "		(f)	(g) 10,131	(g) 11,845	(g) 15,887	(g) 32,653	31,423	67,520	77,550
Bacon and ham " "		(f)	(g) 16,772	(g) 34,021	(g) 53,335	(g) 58,626	71,122	95,119	125,991
Total net value of—									
Pastoral production £'000		} 29,538	(f) 39,256	(d) 36,890	(d) 72,883	(d) 119,399	{ 43,025	85,358	98,374
Dairying " "									
		1881.	1891.	1901.	1911.	1921.	1931.	1941.	1944.
Mineral production—									
Gold	£'000	5,194	5,282	14,018	10,552	4,019	3,564	15,991	6,901
	" "	40	3,736	2,249	3,022	1,540	1,444	6,256	4,415
Silver and lead	" "	714	367	2,215	2,561	804	568	1,505	2,602
	" "	1,146	561	448	1,210	418	216	1,001	838
Tin	" "	—	3	4	1,415	283	513	1,500	1,620
	" "	638	1,912	2,603	3,927	11,015	6,355	10,872	12,684
Total value of all mineral production		£'000 7,820	12,074	21,817	23,303	19,997	13,352	41,257	33,178
Forestry production—									
Quantity of local timber sawn or hewn '000 sup. ft.		(f)	(f)	452,181	604,794	590,495	236,707	913,675	825,575

(a) At 31st December. (b) Partly estimated. (c) Productive cane. (d) Gross value. (e) In terms of greasy. (f) Not available. (g) Years ended December.

STATISTICAL SUMMARY, AUSTRALIA—continued.

Heading.	Years.							
	1881.	1891.	1901.	1911.	1921-22.	1931-32.	1941-42.	1944-45.
Factories—								
No. of factories ..				14,455	18,023	21,657	26,971	28,930
Hands employed ..				311,710	378,540	336,653	725,342	750,579
Wages paid .. £'000				27,528	58,051	55,932	180,052	207,632
Value of production ..				51,259	121,674	110,982	316,439	362,283
Total value of output ..				133,022	320,332	281,646	773,059	886,005
Shipping—								
Overseas vessels entered and cleared .. No. '000 tons	3,284	3,778	4,028	4,174	3,111	3,057	2,544	2,147
Commerce—								
Imports, overseas .. £'000	29,067	37,711	42,434	66,968	103,066	44,713	152,005	188,483
" per head ..	12/16/2	11/16/0	11/3/11	14/18/2	18/14/1	6/16/6	21/5/11	23/13/5
Exports, overseas .. £'000	27,528	36,043	49,696	79,482	127,847	85,843	134,927	123,969
" per head ..	12/2/8	11/5/6	13/2/2	17/13/10	23/4/1	13/1/11	18/18/1	16/17/9
Total overseas trade .. £'000	56,595	73,754	92,130	146,450	230,913	130,556	266,932	312,452
" per head ..	24/18/10	23/1/6	24/6/1	32/12/0	41/18/2	19/18/5	40/4/0	42/11/2
Net Customs and Excise duties .. £'000	4,809	7,441	8,657	13,515	27,565	28,525	55,551	66,487
" per head ..	2/2/5	2/6/7	2/5/8	2/19/2	5/0/1	4/7/1	7/15/8	9/0/3
Principal Oversea Exports(d)—								
Wool .. '000 lb. (e)	328,369	619,260	518,018	720,365	927,834	893,644	937,376	673,659
Wheat .. '000 bus.	13,173	19,940	15,237	26,071	47,977	32,102	49,387	39,387
Flour .. '000 tons	5,365	9,795	20,260	55,148	99,947	127,401	22,313	32,391
Butter .. '000 lb.	1,190	1,939	2,775	9,642	28,644	19,220	4,645	9,752
Hides and skins .. £'000	50	33	97	176	360	611	414	560
Tallow ..	520	328	590	1,392	5,520	3,833	4,191	6,732
Meats ..	1,299	4,240	34,607	101,722	127,347	201,639	130,347	93,739
Timber (undressed) ..	39	207	1,451	4,637	7,968	10,250	8,125	8,250
Gold ..	317	874	1,251	3,227	3,137	2,316	5,982	6,602
Silver and lead ..	644	571	678	1,936	1,442	831	842	670
Copper ..	363	461	2,611	4,303	5,542	6,370	14,094	14,045
Coal ..	118	38	731	1,024	1,158	433	308	308
Government Railways—								
Length of line open .. miles	3,832	9,541	12,579	16,078	23,502	26,959	27,241	27,213
Capital cost .. £'000	42,741	99,704	123,224	152,195	244,353	321,972	322,152	327,276
Gross revenue ..	3,910	8,654	11,038	17,848	38,195	37,580	66,482	74,504
Working expenses ..	2,142	5,630	7,134	10,946	29,818	28,142	51,043	61,370
Per cent. of working expenses on earnings .. %	54.77	65.06	64.63	61.33	78.07	74.88	76.78	82.36
Postal—								
Letters and postcards dealt with .. '000	67,640	157,297	220,853	453,063	561,973	731,135	921,901	932,143
" per head .. No.	29.61	49.07	58.26	100.90	102.01	111.62	129.17	125.77
Newspapers dealt with .. '000	38,063	85,280	102,727	141,638	140,477	139,502	177,974	184,860
" per head .. No.	16.66	26.61	27.10	31.54	25.50	21.30	24.94	24.94
Cheque-paying Banks(f)—								
Note circulation .. £'000	3,979	4,417	3,399	3,718 (g)	214	197	167	166
Coin and bullion held ..	9,108	16,713	19,781	33,471	21,627	2,882	4,479	16,590
Advances ..	57,733	129,742	86,353	108,579	193,436	(h) 260,918 (h)	323,850 (h)	251,705
Deposits ..	53,849	98,345	91,487	143,447	(i) 273,867 (h) 319,241 (h)	482,722 (h)	762,441	762,441
Savings Banks(j)—								
Total deposits .. £'000	7,854	15,537	30,883	59,394	154,396	197,966	274,275	566,964
Aver. per head of population £	3/10/5	4/18/7	8/3/0	13/8/5	28/0/4	30/1/11	38/4/7	76/16/10
State Schools—					1921.	1931.	1941.	1944.
Schools .. No.	4,494	6,231	7,012	8,060	9,445	10,097	9,535	8,651
Teachers ..	9,028	12,564	14,506	16,971	26,120	33,762	32,066	31,200
Enrolment ..	432,320	561,153	638,478	638,350	819,042	936,901	886,655	878,248
Average attendance ..	255,143	350,773	450,240	463,799	666,498	817,262	732,116	722,942

(a) Owing to variation in classification effective comparison is impossible. (b) Import and export values are in British currency. Imports are recorded in British currency; the recorded values for exports were:—1931-32, £A.109,034,000; 1941-42, £A.168,977,000; and 1944-45, £A.155,271,000. (c) Excludes Special War Tax of 10 per cent. on Amount of Customs Duties on all goods entered for home consumption on and after 3rd May, 1940. (d) Australian produce, except gold, which includes re-exports. Australian currency values. (e) In terms of greasy. (f) Figures for first three years are averages for the December quarter; the remainder for the June quarter. (g) Decrease due to prohibition of re-issue. (h) Government "set-off" accounts interstate (Commonwealth Bank) excluded. (i) Includes Commonwealth Savings Bank deposits. (j) First three years at 31st December; remainder 30th June.

CHRONOLOGICAL TABLE.

CHRONOLOGICAL TABLE OF CHIEF EVENTS SINCE THE ESTABLISHMENT OF SETTLEMENT IN AUSTRALIA.

NOTE.—The Government was centralized in Sydney, New South Wales, up to 1825, when Tasmania (Van Diemen's Land) was made a separate colony. In the Table, the names now borne by the States serve to indicate the localities.

- Year.
- 1788 N.S.W.—Arrival of "First Fleet" at Botany Bay. Land in vicinity being found unsuitable for settlement, the expedition moved to Sydney Cove. Formal proclamation of colony on 7th February. Branch Settlement established at Norfolk Island. French navigator Lapérouse visited Botany Bay. First cultivation of wheat and barley. First grape vines planted.
- 1789 N.S.W.—First wheat harvest at Parramatta, near Sydney. Discovery of Hawkesbury River.
- 1790 N.S.W.—"Second Fleet" reached Port Jackson. Landing of the New South Wales Corps.
- 1791 N.S.W.—Arrival of "Third Fleet." Territorial seal brought by Governor King.
- 1792 N.S.W.—Visit of *Philadelphia*, first foreign trading vessel.
- 1793 N.S.W.—First free immigrants arrived in the *Bellona*. First Australian church opened at Sydney. Tas.—D'Entrecasteaux discovered the Derwent River.
- 1794 N.S.W.—Establishment of settlement at Hawkesbury River.
- 1795 N.S.W.—Erection of the first printing press at Sydney. Descendants of strayed cattle discovered at Cowpastures, Nepean River.
- 1796 N.S.W.—First Australian theatre opened at Sydney. Coal discovered by fishermen at Newcastle.
- 1797 N.S.W.—Introduction of merino sheep from Cape of Good Hope.
- 1798 Tas.—Insularity of Tasmania proved by voyage of Bass and Flinders.
- 1800 N.S.W.—Hunter River coal-mines worked. First Customs House in Australia established at Sydney. Flinders' charts published.
- 1801 N.S.W.—First colonial manufacture of blankets and linen.
- 1802 Vic.—Discovery of Port Phillip by Lieut. Murray. Q'land.—Discovery of Port Curtis and Port Bowen by Flinders. S.A.—Discovery of Spencer's and St. Vincent Gulfs by Flinders.
- 1803 N.S.W.—First Australian wool taken to England by Capt. Macarthur. Issue of "The Sydney Gazette," first Australian newspaper. Vic.—Attempted settlement at Port Phillip by Collins. Discovery of Yarra by Grimes. Tas.—First settlement formed at Risdon by Lieut. Bowen.
- 1804 N.S.W.—Insurrection of convicts at Castle Hill. Vic.—Abandonment of settlement at Port Phillip. Tas.—Foundation of settlement at Hobart by Collins, and at Yorktown by Colonel Paterson.
- 1805 N.S.W.—First extensive sheep farm established at Camden by Capt. Macarthur. Portion of settlers from Norfolk Island transferred to Tasmania.
- 1806 N.S.W.—Shortage of provisions. Tas.—Settlement at Launceston.
- 1807 N.S.W.—Final transfer of convicts from Norfolk Island. First shipment of merchantable wool (245 lb.) to England.
- 1808 N.S.W.—Deposition of Governor Bligh.
- 1809 N.S.W.—Isaac Nichols appointed to supervise delivery of oversea letters.
- 1810 N.S.W.—Post Office officially established at Sydney, Isaac Nichols first postmaster. First race meeting in Australia at Hyde Park, Sydney. Tas.—First Tasmanian newspaper printed.
- 1813 N.S.W.—Passage across Blue Mountains discovered by Wentworth, Lawson and Blaxland. Macquarie River discovered by Evans.
- 1814 N.S.W.—Flinders suggested the name "Australia", instead of "New Holland". Creation of Civil Courts.

Year.

- 1815 N.S.W.—First steam engine in Australia erected at Sydney. Lachlan River discovered by Evans. Tas.—Arrival of first immigrant ship with free settlers. First export of wheat to Sydney.
- 1816 N.S.W.—Botanic Garden formed at Sydney.
- 1817 N.S.W.—Oxley's first exploration inland. Discovery of Lakes George and Bathurst and the Goulburn Plains by Meehan and Hume. First bank in Australia—Bank of New South Wales—opened at Sydney.
- 1818 N.S.W.—Liverpool Plains, and the Peel, Hastings and Manning Rivers discovered by Oxley, and Port Essington by Captain King.
- 1819 N.S.W.—First Savings Bank in Australia opened at Sydney.
- 1820 Tas.—First importation of pure merino sheep.
- 1821 Tas.—Establishment of penal settlement at Macquarie Harbour.
- 1823 N.S.W.—New South Wales Judicature Act passed. Discovery of gold at Fish River by Assistant-Surveyor McBrien. Qld.—Brisbane River discovered by Oxley.
- 1824 N.S.W.—Constituted a Crown Colony. Executive Council formed. Establishment of Supreme Court at Sydney, and introduction of trial by jury. First Australian Enactment (Currency Bill) passed by the Legislative Council. Proclamation of freedom of the press. First manufacture of sugar. Vic.—Hume and Hovell, journeying overland from Sydney, arrived at Corio Bay. Qld.—Penal settlement founded at Moreton Bay (Brisbane). Fort Dundas Settlement formed at Melville Island, N. Terr.
- 1825 N.S.W.—Extension of western boundary to 129th meridian. Tas.—Separation of Van Diemen's Land (Tasmania). Qld.—Major Lockyer explored Brisbane River to its source, and discovered coal.
- 1826 N.S.W.—Settlement in Illawarra District. Vic.—Settlement at Corinella, Western Port, formed by Captain Wright.
- 1827 N.S.W.—Colony became self-supporting. Qld.—Darling Downs and the Condamine River discovered by Allan Cunningham. W.A.—Military Settlement founded at King George's Sound by Major Lockyer. First official claim of British Sovereignty over all Australia.
- 1828 N.S.W.—Second constitution. First Census. Sturt's expedition down Darling River. Gas first used at Sydney. Richmond and Clarence Rivers discovered by Captain Rous. Vic.—Abandonment of settlement at Western Port. Qld.—Cunningham discovered a route from Brisbane to the Darling Downs, and explored Brisbane River.
- 1829 N.S.W.—Sturt's expedition down Murrumbidgee River. W.A.—Foundation of settlement at Swan River. Foundation of Perth.
- 1830 N.S.W.—Insurrection of convicts at Bathurst. Sturt, voyaging down Murrumbidgee and Murray Rivers, arrived at Lake Alexandrina. Tas.—Trouble with natives. Black line organized to force aborigines into Tasman's Peninsula, but failed. Between 1830 and 1835, however, George Robinson, by friendly suasion, succeeded in gathering the small remnant of aborigines (203) into settlement on Flinders Island.
- 1831 N.S.W.—Crown lands first disposed of by public competition. Mitchell's explorations north of Liverpool Plains. Arrival at Sydney of first steamer, *Sophia Jane*, from England. SS. *Surprise*, first steamship built in Australia, launched at Sydney. First coal shipped from Australian Agricultural Company's workings at Newcastle, N.S.W. First assisted immigration to N.S.W. S.A.—Wakefield's first colonization committee. W.A.—Appointment of Executive and Legislative Councils.
- 1832 N.S.W.—State Savings Bank established.
- 1833 N.S.W.—First School of Arts established at Sydney.
- 1834 N.S.W.—First settlement at Twofold Bay. Vic.—Settlement formed at Portland Bay by Henty Bros. S.A.—Formation of the South Australian Association. W.A.—Severe reprisals against natives at Pinjarrah.

- Year.
- 1835 Vic.—John Batman arrived at Port Phillip; made treaty with the natives for 600,000 acres of land; claim afterwards disallowed by Imperial Government. Foundation of Melbourne.
- 1836 N.S.W.—Mitchell's overland journey from Sydney to Cape Northumberland. Vic.—Proclamation of Port Phillip district as open for settlement. S.A.—Settlement founded at Adelaide under Governor Hindmarsh.
- 1837 N.S.W.—Appointment in London of Select Committee on Transportation. Vic.—Melbourne named by Governor Bourke. First overlanders from Sydney arrived at Port Phillip.
- 1838 N.S.W.—Discontinuance of assignment of convicts. Qld.—Settlement of German missionaries at Brisbane. S.A.—“Overlanding” of cattle from Sydney to Adelaide along the Murray route by Hawden and Bonney. Settlement at Port Essington, Northern Territory, formed by Captain Bremer.
- 1839 N.S.W.—Gold found at Vale of Clwydd by Count Strzelecki. S.A.—Lake Torrens discovered by Eyre. Port Darwin discovered by Captain Stokes. W.A.—Murchison River discovered by Captain Grey.
- 1840 N.S.W.—Abolition of transportation to New South Wales. Land regulations—proceeds of sales to be applied to payments for public works and expenditure on immigration. Vic.—Determination of northern boundary. Qld.—Penal settlement broken up and Moreton Bay district thrown open. S.A.—Eyre began his overland journey from Adelaide to King George's Sound.
- 1841 N.S.W.—Gold found near Hartley by Rev. W. B. Clarke. W.A.—Completion of Eyre's overland journey from Adelaide to King George's Sound. Tas.—Renewal of Transportation. New Zealand proclaimed a separate colony.
- 1842 N.S.W.—Incorporation of Sydney. Vic.—Incorporation of Melbourne. S.A.—Discovery of copper at Kapunda.
- 1843 N.S.W.—First Representative Constitution (under Act of 1842). First manufacture of tweed. Qld.—Moreton Bay granted legislative representation.
- 1844 Qld.—Leichhardt's expedition to Port Essington. S.A.—Sturt's last expedition inland.
- 1845 N.S.W.—Mitchell's explorations on the Barcoo. Qld.—Explorations by Mitchell and Kennedy. S.A.—Discovery of the Burra copper deposits. Sturt discovered Cooper's Creek.
- 1846 N.S.W.—Initiation of meat-preserving. Qld.—Foundation of settlement at Port Curtis. S.A.—Proclamation of North Australia. W.A.—Foundation of New Norcia (Benedictine) Mission.
- 1847 N.S.W.—Iron-smelting commenced near Berrima. Overland mail established between Sydney and Adelaide. Vic.—Melbourne created a City. Qld.—Explorations by Leichhardt, Burnett and Kennedy.
- 1848 Qld.—Leichhardt's last journey. Kennedy speared by the blacks at York Peninsula. Chinese brought in as shepherds.
- 1849 N.S.W.—Indignation of colonists at arrival of convict ship *Hashemy*. Exodus of population to gold-fields of California. Vic.—*Randolph* prevented from landing convicts. Qld.—Assignment of convicts per *Hashemy* to squatters on Darling Downs. W.A.—Commencement of transportation to Western Australia.
- 1850 N.S.W.—Final abolition of transportation. First sod of first Australian railway turned at Sydney. Sydney University founded. Vic.—Gold discovered at Clunes by Hon. W. Campbell. Representative government granted. S.A.—Representative government granted. W.A.—Pearl oysters found by Lieut. Helpman at Saturday Island Shoal. Tas.—Representative government granted.
- 1851 N.S.W.—Payable gold discovered by Hargraves at Lewis Ponds and Summerhill Creek. Vic.—Separation of Port Phillip—created an independent colony under the name of Victoria. Discovery of gold in various localities. “Black Thursday,” 6th Feb., a day of intense heat. W.A.—Proclamation of Legislative Council Act.

Year.

- 1896 N.S.W.—People's Federal Convention at Bathurst.
- 1897-8 Sessions of Federal Convention at Adelaide, Sydney and Melbourne.
- 1898 N.S.W.—First surplus of wheat for export.
Draft Federal Constitution Bill submitted to electors in Victoria, New South Wales, South Australia and Tasmania. Requisite statutory number of votes not obtained in New South Wales.
- 1899 First contingent of Australian troops sent to South Africa. Conference of Premiers in Melbourne to consider amendments to Federal Constitution Bill. Referendum—Bill accepted by New South Wales, Victoria, Queensland, South Australia and Tasmania. First Labour Government (Queensland).
- 1900 N.S.W.—Old-age pensions instituted.
Contingents of naval troops sent to China. Commonwealth Constitution Act received Royal Assent, 9th July. Proclamation of Commonwealth signed, 17th September. Mr. (afterwards Sir) Edmund Barton formed first Federal Ministry.
- 1901 Vic.—Old-age pensions instituted.
Proclamation of the Commonwealth at Sydney. First Federal Parliament opened at Melbourne by the Duke of Cornwall and York. Interstate free-trade established.
- 1902 N.S.W.—Disastrous explosion at Mount Kembla Colliery—95 lives lost. W.A.—Opening of pumping station at Northam in connexion with Gold-fields water supply. Completion of Pacific Cable (all-British). First Federal Tariff.
- 1903 W.A.—Coolgardie and Kalgoorlie Water Supply Scheme completed.
Inauguration of the Federal High Court.
- 1905 N.S.W.—Re-introduction of assisted immigration.
- 1906 Wireless telegraphy installed between Queenscliff, Vic., and Devonport, Tas.
Papua taken over by Commonwealth.
- 1907 N.S.W.—Telephone, Sydney to Melbourne, opened. First telephone trunk line service between Capital Cities, i.e., Sydney and Melbourne.
Imperial Conference in London.
- 1908 Canberra chosen as site of Australian Capital. Visit of U.S.A. fleet to Australia.
- 1909 Imperial Defence Conference in London—Commonwealth ordered two destroyers and one first-class cruiser for fleet unit. Visit of Lord Kitchener to report and advise on Australian military defence. Queensland University founded.
- 1910 Referendum on financial relations between the Commonwealth and the States. Penny Postage. Arrival of *Yarra* and *Parramatta*, first vessels built for the Royal Australian Navy. Australian Notes Act passed and first Commonwealth notes issued. Admiral Sir R. Henderson visited Australia to advise on naval defence.
- 1911 First Federal Census. Transfer of Australian Capital Territory and Northern Territory to Commonwealth. Introduction of compulsory military training. Establishment of penny postage to all parts of British Empire. University of Western Australia founded.
- 1912 Opening of Commonwealth Bank. First payments of Maternity Bonus. First sod turned at Port Augusta of Trans-Australian Railway (Port Augusta to Kalgoorlie).
- 1913 Australian Capital named Canberra and foundation stone laid. Appointment of Interstate Commission.
- 1914 Visit of General Sir Ian Hamilton to report on military defence scheme. Double dissolution of Federal Parliament. Visit of British Association for the Advancement of Science. Transfer of Norfolk Island to Commonwealth.
European War declared 4th August. Australian Navy transferred to British Navy. Australian offer to equip and furnish 20,000 troops accepted. German possessions in South-West Pacific seized by Australian Naval and Military Expeditionary Force. German cruiser *Emden* destroyed by H.M.A.S. *Sydney* at Cocos Islands, 9th November. First contingent landed in Egypt. Australian and New Zealand Army Corps (A.N.Z.A.C.) formed under Sir William Birdwood.

Year.

- 1915 Opening of Broken Hill Proprietary's Ironworks at Newcastle, N.S.W. Navy Department created. Defeat of Third Fisher Government. Hughes Ministry formed.
- Australian and New Zealand troops landed at Gallipoli, 25th April. Battle of Sari Bair (Lone Pine), 6th-10th August. Evacuation, 18th-20th December. Australian warships with Grand Fleet, in Atlantic, Malaysia, and elsewhere overseas during remainder of war.
- 1916 Purchase of steamships by the Commonwealth.
- Australian and New Zealand mounted troops organized in mounted divisions and camel corps, operating thereafter in Egypt, Palestine and Syria. Battle of Romani, 4th August. Other troops with reinforcements organized as four infantry divisions (1st, 2nd, 4th and 5th) with some other units, and transferred to France. Fromelles, 19th July; the Somme, 1st July-18th November (Pozieres, Moquet Farm, Flers). 3rd Division, formed in Australia, landed in France. First proposal for compulsory military service defeated by referendum.
- 1917 National Ministry formed under Rt. Hon. W. M. Hughes. Kalgoorlie-Port Augusta railway completed.
- German withdrawal from Somme; Arras offensive (Bullecourt, 11th April and 3rd May); Messines, 7th June; Third Battle of Ypres, 1st July-10th November (Menin Road, Polygon Wood, Broodseinde, Passchendaele). Palestine—Gaza, 26th March, 19th April, 31st October (Beersheba). Australian Flying Corps operating with R.F.C. in Palestine and France. Second proposal for compulsory military service defeated by referendum.
- 1918 Population of Australia reached 5,000,000. Australia House (Strand, London) opened by the King.
- Five Australian divisions in France formed into army corps, 1st January. Sir William Birdwood succeeded by Sir John Monash, 30th May. Defensive campaign on Somme, 21st March-25th April (Dernancourt, Villers-Bretonneux); Battles of the Lys, 9th-29th April (Hazebrouck); Hamel, 4th July; Battle of Amiens, 8th August; Mont St. Quentin, 31st August; Hindenburg Line, 18th September-5th October. Palestine—Megiddo, 19th September; Damascus, 1st October. Armistice with Germany, 11th November. Repatriation Commission created.
- 1919 Messrs. Hughes and Cook represented Australia at Peace Conference. Return of Australian troops. Flight England to Australia by Capt. Sir Ross Smith and Lieut. Sir Keith Smith. Peace Treaty signed at Versailles, 28th June.
- 1920 Visit to Australia of H.R.H. the Prince of Wales. Wholesale prices reached a point more than double the 1914 level.
- 1921 Second Commonwealth Census. Germany's indemnity fixed (Australia's share approximately £63,000,000). Mandate given to Australia over Territory of New Guinea. First direct wireless press message, England to Australia.
- 1922 First lock on River Murray opened at Blanchetown, South Australia. Queensland Legislative Council abolished.
- 1923 First sod turned on the site of Federal Parliament House at Canberra.
- 1924 Visit of British cruiser squadron. Directorate of Commonwealth Bank appointed. Australian Loan Council formed.
- 1925 Visit of American fleet. Solar Observatory established at Canberra. Brisbane-Grafton railway joining Sydney and Brisbane by uniform gauge was commenced. Sydney Harbour Bridge commenced.
- 1926 Population of Australia reached 6,000,000. Council for Scientific and Industrial Research established. Imperial Conference. Dominion Status defined.

Year.

- 1927 Transfer of Seat of Commonwealth Government from Melbourne to Canberra. New Parliament House opened by H.R.H. the Duke of York. Beam wireless established.
- 1928 Visit of British Economic Mission to report on the development of Australian resources. Financial agreement of Commonwealth and States; Loan Council reconstituted; State debts to be taken over; Referendum carried.
- 1929 Beginning of fall in export prices. Commonwealth Bank empowered to mobilize gold reserve. Substantial export of gold reserves towards end of year. Bruce-Page Government defeated. Labour Ministry formed by Hon. J. H. Scullin.
- 1930 Wireless phone service with other countries inaugurated. Export prices fell to half 1928 level. Cessation of oversea loans. Tariff embargoes and rationing of imports. Visit of Sir Otto Niemeyer, of Bank of England, to discuss financial questions. Heavy export of gold reserves. Exchange Pool formed. Gold bonus granted. Government deficits total nearly £11,000,000. First Australian—Right Hon. Sir Isaac Alfred Isaacs, G.C.M.G., Chief Justice of the High Court—appointed Governor-General of Australia. Telephone trunk line service established between Adelaide and Perth linking up the whole of the mainland States by telephone.
- 1931 Depression continues; Australia substantially off gold standard with exchange rate at 130 in January; 10 per cent. cut in Federal basic wage. First experimental air mail England to Australia and return. Initiation of Premiers' Conference plan to meet the financial situation. Commonwealth Bank Act amended to provide for temporary lower reserve against notes; substantial export of gold reserves. England departs from gold standard in September; depreciation of Australian £1 on Sterling continued. Wheat bounty granted. Commonwealth Bank assumed control of exchange rate and lowered it to 125. Government deficits total £25,370,000, 1930-31.
- 1932 Sydney Harbour Bridge opened. Australian Broadcasting Commission established. Lang Ministry dismissed in New South Wales. Emergency restrictions on imports relaxed. Legislation passed enabling note reserve to be held in sterling securities, subsequently gold was shipped to the United Kingdom. Imperial Economic Conference at Ottawa, with consequential tariff agreements. Scullin Government defeated. Lyons Ministry formed. Taxation reductions and assistance to wheat-growers. Government deficits reduced to £19,500,000 for 1931-32.
- 1933 Third Commonwealth Census. Imperial Air-mail "Astraea" arrived. World Economic Conference in London. Australia elected as Member of League of Nations. Secession Referendum carried (Western Australia). Referendum carried for reduction and limitation of number of members of Legislative Council (New South Wales). Record wheat harvest (213,927,000 bushels). Antarctica and Ashmore and Cartier Islands taken over by the Commonwealth.
- 1934 Visit of H.R.H. the Duke of Gloucester to open Victorian Centenary Celebrations, Goodwill Mission to the East—Leader Rt. Hon. J. G. Latham. Record flight from England to Australia by Messrs. Scott and Black (Centenary Air Race) in 71 hours. Inauguration of England-Australia Air Mail Service.
1935. Visit of the Rt. Hon. J. A. Lyons, Prime Minister, to London for Silver Jubilee of H.M. King George V. Empire Statistical Conference at Ottawa. Japanese Goodwill Mission to Australia. Meeting of the British Medical Association for the first time in Australia.
- 1936 South Australian Centenary. Trade dispute with Japan. Joint Commonwealth and State Marketing Schemes invalidated by decision of the Privy Council in the James case. Tasmania linked with mainland by submarine telephone cable.

Year.

- 1937 Referendum on Commonwealth control of aviation and marketing defeated on both issues. Imperial conference in London. Commonwealth basic wage increased by 5s. per week. Report of the Royal Commission on Monetary and Banking Systems in Australia.
- 1938 New South Wales Sesqui-Centenary Celebrations. Australian Trade Delegation to review Ottawa Agreement. New Lyons Ministry. New Defence Programme involving expenditure of £63,000,000 over three years; militia forces to be raised to 70,000. New Trade Treaty with Japan.
- 1939 Death of the Rt. Hon. J. A. Lyons, Prime Minister. Page Ministry 7th to 26th April. Menzies Ministry formed. National Register and Wealth Census. War declared on Germany, 3rd September, by Britain and France after invasion of Poland. Prime Minister declared Australia at war on same date. Australia participates in vast Empire Air Training Scheme. Compulsory military training re-introduced for home defence. Special volunteer force of 20,000 men enlisted and trained for service overseas. Purchase by the British Government of the Australian wool clip and the export surplus of butter, cheese, eggs, meat, sugar, wheat, flour, lead, and zinc. Royal Australian Navy placed at disposal of Great Britain, 2nd September. No. 10 Sunderland Flying Boat Squadron, R.A.A.F., both personnel and aircraft, accepted by British Government for service with Coastal Command. *Middle East Campaign*. Advance party of Australians embarked for Middle East, 15th December.
- 1940 Exchange of Ministers between Australia and United States of America. Appointment of Australian Minister to Japan. Exchange of High Commissioners between Australia and Canada. Population of Australia reached 7,000,000. Naval Dock commenced at Sydney. New Menzies Ministry formed. Petrol rationing introduced. Commonwealth elections held. Cruiser *Perth* on patrol and escort work in Caribbean Sea and Western Atlantic. Cruiser *Australia* in Atlantic and later in operations off Dakar. Cruiser *Sydney* and five destroyers in Mediterranean. *Sydney* put to flight two Italian cruisers, July. One, *Bartolomeo Colleoni*, crippled and afterwards sunk by torpedoes. Cruiser *Hobart* at evacuation of British Somaliland, August. Australians in R.A.F. with squadrons of Advanced Air Striking Force, France, with Fighter Command squadrons, and with Bomber Command over Germany and Norway. No. 3 Squadron, R.A.A.F., sent to Libyan and Egyptian zone for co-operation with A.I.F. divisions. Three R.A.A.F. squadrons sent to Singapore. *Middle East Campaign*. First Australian convoy (6th Australian Division) sailed for Middle East, 11th January.
- 1941 Appointment of Japanese Minister to Australia. Prime Minister's visit to London. Appointment of Sir Thomas Blamey as Deputy Commander-in-Chief of British Forces in the Middle East. Establishment of Commonwealth Child Endowment Scheme. Cessation of commercial relations between Australia and Japan. Exchange of Ministers between Australia and China. United States Congress passed Lend-Lease Bill. Atlantic Charter signed by Mr. Roosevelt and Mr. Churchill. Hon. A. Fadden succeeded Rt. Hon. R. G. Menzies as Prime Minister. Fadden Government defeated on Budget. Hon. J. Curtin formed Labour Ministry. Japanese attack on Pearl Harbour. Australia declared war on Japan, 9th December. War-time control of trading banks. During May and June, *Perth*, seven destroyers and one sloop engaged in Mediterranean—evacuation of Greece and Crete, Syrian campaign, Tobruk. Australian destroyers occupied on "Tobruk Ferry Run". Destroyer *Waterhen* and Sloop *Parramatta* lost in action. *Sydney* lost in November during engagement in Indian Ocean with raider *Steiermark*, which was sunk. R.A.A.F. squadrons with Fighter Command in defence of Britain and with Bomber Command. R.A.A.F. squadrons also operating in Middle East. Further R.A.A.F. squadron sent to Singapore.

Year.

- 1941— *contd.* *Middle East Campaign.* Bardia, Tobruk, Derna, Benghazi, Giarabub (North Africa) captured, 5th January–21st March. British and Australians commenced withdrawal from area of El Agheila, 24th March. Last Australian rearguard reached Tobruk, 10th April. First engagement of Australian and German forces on Greek front, 10th April. Evacuation of Greece begun, 24th April. Evacuation from Sphakia, Crete, 31st May. Syrian campaign, 8th June–12th July.
- Malayan Campaign.* Arrival of units of Eighth Australian Division in Malaya, 18th February.
- 1942 Daylight saving introduced. Darwin bombed. Allied Supply Council formed. United States armed forces land in Australia. General Douglas MacArthur Supreme Commander of Allied Forces in South-west Pacific. Regulation of prices, April, 1942. Federal uniform taxation adopted. Commonwealth widows' pensions introduced. Japanese submarines sunk in Sydney Harbour. Rationing of commodities. Labour Corps formed for Allied Works. Exchange of Ministers between Netherlands, Soviet Union of Russia and Australia. Constitutional Convention held in Canberra—Bill approved for reference to Commonwealth by States of powers to make laws in relation to post-war reconstruction.
- R.A.N. ships, until invasion of Java, under almost constant Japanese air, submarine and surface attacks, while engaged in minesweeping, anti-submarine protection, patrolling and convoy escort work in Malayan waters. *Perth* lost in Sunda Strait, 28th February–1st March. Sloop *Yarra* lost defending convoy against three cruisers and four destroyers. Destroyer *Vampire* sunk by aircraft, Bay of Bengal, April. *Australia* and *Hobart* part of Task Force screening Port Moresby during Coral Sea Battle, May. Cruisers *Australia*, *Canberra* and *Hobart* led attack on Solomon Islands, August. *Canberra* was lost there. Destroyer *Voyager* lost disembarking Army personnel and stores on Timor coast, September. Corvette *Armida* sunk by aircraft, December. R.A.A.F. Sunderlands operated with Coastal Command on anti-submarine patrols, and R.A.A.F. Hampdens carried torpedoes against enemy shipping off coast of Norway. Detachment of No. 455 Squadron sent to Russia; there carried out convoy escort duty and mapped part of Arctic Ice Barrier. Low-level daylight attacks against important pin-point targets carried out by R.A.A.F. with Venturas and Mosquitos. In Middle East two R.A.A.F. squadrons engaged in naval co-operation work, convoy escort and sea reconnaissance. Composite R.A.A.F. squadron at Rabaul overwhelmed by intense air attacks prior to capture of Rabaul. First R.A.A.F. fighter squadron operating from Port Moresby reduced to three aircraft in six weeks, but destroyed 35 enemy aircraft for loss of 12 pilots and 22 aircraft. R.A.A.F. contributed largely to enemy's defeat at Milne Bay. Supplies dropped to troops advancing down northern slopes of Owen Stanleys.
- Middle East Campaign.* Ninth Australian Division launched first attack in British thrust at El Alamein (North Africa), 23rd October.
- Malayan Campaign.* First contact of Australian troops with Japanese, 14th January. Fall of Singapore, 15th February.
- South-west Pacific Campaign.* Japanese landed at Rabaul, 23rd January; Java, 27th February; Lae, Salamaua, Finschhafen (New Guinea), 7th–10th March. First contact between Australians and Japanese at Awala, 23rd July. Australians withdrew from Kokoda, 10th August. Japanese forced to withdraw from Milne Bay, 5th September. Australians recaptured Kokoda and Gorari, and captured Oivi, Wairopi, Gona, 2nd November–9th December.
- 1943 Ceiling prices fixed, 12th April. Commonwealth elections held—return of Curtin Government. National Register of Civilians. High Commissioners appointed to India and New Zealand. Price Stabilization Scheme. Mortgage Bank Department of Commonwealth Bank opened. National Works Council formed.

Year.

1943—
contd.

Royal Australian Navy maintained essential sea communications between Australia and New Guinea and guarded Australian coastal traffic. In December began a long series of amphibious operations which finally defeated the enemy forces in the South-West Pacific Area. Royal Australian Navy ships of all sorts took part in these operations thenceforward until the end of the war. From 1943 to the end of the war R.A.A.F. squadrons in Britain continued anti-submarine patrols and to protect convoys. The R.A.A.F. attacked shipping in the North Sea and along the Norwegian coast, bombed strategic targets in Germany and in occupied countries, carried out intruder operations, provided cover for bombers, operated against flying bombs "V" weapon launching sites, and followed the invasion forces to the Continent. In the Middle East the R.A.A.F. operated over Tunisia in support of the Eighth Army and over Italy, Greece and Crete, assisted Yugo-slav partisans, and took part in the invasion of Southern France. By 1943 R.A.A.F. medium bombers and long-range fighters were operating around Dutch New Guinea and heavy bombers about Borneo and Netherlands East Indies. Mining of enemy ports in the South-West Pacific Area was begun by Catalinas in April, 1943, and sustained throughout the remainder of the war. No. 10 Operational Group, a mobile task force formed in January, 1944, gave direct support to land forces in the Ramu Valley and took part in subsequent operations in northern New Guinea. Renamed First Tactical Air Force, R.A.A.F., it moved to Morotai and from there attacked enemy watercraft. Northern Command, R.A.A.F., formerly No. 9 Operational Group, protected shipping, and supported land operations in Wewak, New Britain and Bougainville. First Tactical Air Force, R.A.A.F. and heavy bombers of north-western area took part in Tarakan, Brunei and Balikpapan landings. Throughout the war R.A.A.F. mainland squadrons helped to guard important shipping lanes. R.A.A.F. personnel served in R.A.F. squadrons in the Burma-India theatre.

South-west Pacific Campaign. Australians and Americans took Buna, 2nd January; Sanananda, 22nd January. Australians counter-attacked at Wau and began drive to Salamaua, 3rd February. Australian and American paratroops, Australian artillery, engineers and pioneers took Nadzab, 5th September. Aerial movement of Australian troops into Markham Valley began, 7th September. Australians captured Salamaua, Lae, Finschhafen, Dumpu, Sattelberg Heights, Wareo, 11th September—8th December.

1944 Mutual Co-operation Agreement between Australia and New Zealand. National Works Council approved £200,000,000 post-war works programme. Disastrous bushfires in Victoria. Mutual Aid Agreement between Canada and Australia. First Victory Loan of £150,000,000 over-subscribed. Invasion of France by sea and air on 6th June. Pay-as-you-earn taxation operated from 1st July. Completion of term as Governor-General by Lord Gowrie. Referendum on Constitution Amendment to give Commonwealth Government increased powers in post-war period defeated. Almost £155,000,000 subscribed to Second Victory Loan. First High Commissioner for India arrived in Australia.

South-West Pacific Campaign. Australians took Bogadjim, Madang, Alexis-hafen, 13th—26th April. Australians landed on New Britain, 11th October. Australians took over from Americans in Bougainville, Solomon Islands, 23rd November, and at Aitape, New Guinea, 1st December. Danmap River, New Guinea, crossed, 17th December. Pearl Ridge, Bougainville, occupied, 30th December.

1945 H.R.H. the Duke of Gloucester sworn in as Governor-General. Captain Cook Dock opened. £100,000,000 Third Victory Loan over-subscribed. Cessation of hostilities in Europe, 8th May. Delegates of 50 countries sign United Nations' Charter at San Francisco. Fast new Lancastrian air service between Sydney and England. Occupation Survey taken of all civilian males aged 14 years and over. Re-establishment and Employment Act 1945 assented

Year.

1945—
contd.

to 28th June. Death of Rt. Hon. John Curtin, Prime Minister of Australia. Hon. J. B. Chifley appointed Prime Minister. War Gratuity Act 1945 and Australian National Airlines Act 1945 assented to 3rd August. Cessation of hostilities against Japan, 15th August. Casualties of Australian Fighting Services as known at 31st October, 1945, totalled 95,746, including 28,753 killed. Decision to standardize Australian railway gauges. Termination of Lend-Lease. General demobilization of Armed Forces commenced. £85,000,000 Fourth Victory Loan filled.

South-West Pacific Campaign. Australians occupied But airfield, near Wewak, New Guinea, 17th March. Landing on Soraken Peninsula, Bougainville, 20th March. Battle of Puriata River, Bougainville, won 30th March. Wewak, New Guinea, captured in combined amphibious landing and land assault, 11th May. Australians landed on Bonis Peninsula, northern Bougainville, 8th June. Yamil, in Torricelli Mountains, New Guinea, occupied, 11th June.

Borneo Campaign. Australians landed at Tarakan Island, north-east Borneo, 1st May. Tarakan and oilfields and airstrip captured 6th–11th May. Landing at Brunei Bay, north-west Borneo, 10th June. Brunei town captured, 13th June. Landing at Lutong, Sarawak, north Borneo, 20th June. Oilfields at Brunei and Sarawak taken, 22nd–23rd June. Landing at Balikpapan, south-east Borneo, 1st July.

OFFICIAL YEAR BOOK

OF THE

COMMONWEALTH OF AUSTRALIA, 1944 AND 1945.

CHAPTER I.

DISCOVERY, COLONIZATION AND FEDERATION OF AUSTRALIA.

§ 1. Early Knowledge and Discovery of Australia.

1. **Introduction.**—Only a brief summary of the more important facts relating to the early history of Australian discovery is given in this Chapter. A more complete account of this subject, together with bibliographical references thereto, may be found in Official Year Book No. 1 (pp. 45-51), although this account must be modified somewhat in view of later investigations.

2. **Early Tradition.**—It would appear that there was an early Chaldean tradition as to the existence of an Austral land to the south of India. Rumours to that effect in the course of time found their way to Europe, and were probably spread by travellers from Indian seas, more especially by the Greek soldiers who accompanied Alexander the Great [356-323 B.C.] to India. References to this *Terra Australis* are found in the works of Elianus [A.D. 205-234], Manilius [probably a contemporary of Augustus or Tiberius Cæsar], and Ptolemy [A.D. 107-161]. In some of the maps of the first period of the Middle Ages there is evidence which might warrant the supposition of the knowledge of the existence of a *Terra Australis*, while some idea of the Austral land appears in the maps and manuscripts of the fourteenth and fifteenth centuries. But much of the map-drawing in these early days was more or less fanciful, and there is no evidence definitely connecting this so-called *Terra Australis* with Australia.

3. **Discovery of Australia.**—(i) *General.* The Venetian traveller Marco Polo [1254-1324] refers to a land called *Locac*, which through a misunderstanding of his meaning was long thought to be Australia. But Marco Polo knew nothing of any land to the south of Java, and in any case the description given of the so-called *Locac* could not possibly be applied to Australia, as the writer speaks of elephants, etc. On a Mappamundi in the British Museum, of not later date than 1489, there is a coast-line which has been considered to represent the west coast of Australia. Investigation by Wood and others proves this claim to be merely fanciful. Martin Behaim's globe, the oldest known globe extant, constructed in 1492, also shows what purports to be a part of Australia's coast-line, and a globe discovered in Paris bears an inscription to the effect that the *Terra Australis* was discovered in 1499. These also have other countries located in impossible positions. The term *Terra Australis* was, however, also applied to the region now known as Tierra del Fuego, hence little weight can be attached to this reference.

In the Dauphin map [about 1530-1536] Java la Grande has been supposed by some to represent Australia, but an inspection of the unreal animals and other figures thereon lends no weight to the idea. As a matter of fact much of this map drawing was simply an attempt to support the old notion that the land surface of the southern hemisphere must balance that of the northern.

(ii) *Arab Expeditions.* It has been stated that the Arabs had come to Australia long before the Portuguese, the Spaniards or the Dutch, but there is no evidence to support the statement.

(iii) *Spanish and Portuguese Expeditions.* The last decade of the fifteenth century and the commencement of the sixteenth saw numerous expeditions equipped in the ports of Spain and Portugal for the purpose of exploiting the new world. The Portuguese rounded the Cape of Good Hope in 1487 and eleven years later pushed eastward to India. The Spaniards, relying on the scientific conclusion that the world was spherical, attempted to get to the East by deliberately starting out west. Magalhaens by so doing reaching the Philippine Islands in 1521.

In 1606 Quiros, on reaching the island that has retained the name of Espiritu Santo (the largest island of the New Hebrides group), thought that he had discovered the great land of the south, and therefore named the group *La Australia del Espiritu Santo*. After leaving the New Hebrides, Quiros sailed eastward, but Torres, his second-in-command, took a westerly course and passed through the strait that now bears his name. In all probability he sighted the Australian Continent, but no mention is made of this fact in his records. This voyage marks the close of Spanish activity in the work of discovery in the South Seas.

(iv) *Discoveries by the Dutch.* With the decline of Portuguese and Spanish naval supremacy came the opportunity of the Dutch for discovery. Cornelius Wytfliet's map, of which there was an English edition, published in Louvain in 1597, indicates roughly the eastern and western coasts of Australia, as well as the Gulf of Carpentaria. The following oft-quoted passage occurs in Wytfliet's *Descriptionis Ptolemaicæ Augmentum*: "The *Australis Terra* is the most southern of all lands. It is separated from New Guinea by a narrow strait. Its shores are hitherto but little known, since after one voyage and another, that route has been deserted and seldom is the country visited, unless when sailors are driven there by storms. The *Australis Terra* begins at one or two degrees from the equator, and is maintained by some to be so great in extent that, if it were thoroughly explored, it would be regarded as a fifth part of the world." According to Wood the above passage has its origin in the voyages through the straits of Magellan and the discovery of Tierra del Fuego rather than that of Australia.

The Dutch discovered Australia when the Dutch East India Company sent the *Duyfken* from Bantam to explore the islands of New Guinea. During March, 1606, the *Duyfken* coasted along the southern shores of New Guinea, and followed the west coast of Cape York peninsula as far as Cape Keer-Weer (Turn Again). Dirck Hartogs (on the plate in the Amsterdam Museum recording his voyage the name is written Dirck Hatichs), in the *Eendracht* in 1616, sailed along a considerable part of the west coast of the continent. It may be mentioned that the route was not definitely selected, but that the navigator simply went farther east than the usual course from the Cape to Java.

In 1618 the *Zeewolf* found land in latitude 26° 15' south, and in the following year Frederik Houtman discovered the reef of the west coast, now known as *Houtman's Abrolhos*.

In 1622 the Dutch vessel *Leeuwin* rounded the Cape, which now bears that name, at the south-west of the continent, and in 1623 the Dutch vessels *Pera* and *Arnhem* discovered Arnhem Land, the peninsula on the western side of the Gulf of Carpentaria, which was so named in compliment to Peter Carpentier, Governor of the Dutch East India Company.

In 1627, Francis Thys, Commander of the *Gulde Zeepaerd*, with Pieter Nuys, of the Dutch Council of Seventeen, on board, coasted along a portion of the shore of the Great Australian Bight. In 1628, De Witt, Commander of the *Vianen*, discovered land on the north-west, namely, in about latitude 21° S. The *Batavia*, commanded by Francis Pelsart, was wrecked on the western coast of Australia in 1629. Pelsart was the first to carry to Europe an authentic account of the west coast of Australia, which, however, he described in the most unfavourable terms. The yachts *Amsterdam* and *Wesel*, under Gerrit Pool, visited the Gulf of Carpentaria in 1636.

Abel Janszoon Tasman, in command of two vessels, the *Heemskerck* and *Zeehaen*, set out from Batavia in 1642 to ascertain the extent of the great southern continent. He named Van Diemen's Land, imagining it to be part of Australia proper, and sailing north-easterly discovered New Zealand and returned to Batavia. In his second voyage in 1644, Tasman visited the northern coast of Australia, sailing round the Gulf of Carpentaria and along the north-west coast as far down as the tropic of Capricorn.

William de Vlamingh landed at the mouth of the Swan River at the end of 1696 and an exploring squadron under Martin Van Delft explored and named part of the north-west coast in 1705, but the period of Dutch discoveries may be said to have ended with Tasman's second voyage, and, with the decline of her maritime power, the Dutch interest in Australian discovery disappeared.

4. Discoveries by the English.—In the meantime the English had made their first appearance on the Australian coast in 1688, when the north-westerly shores were visited by William Dampier, as supercargo of the *Cygnet*, a trading vessel whose crew had turned buccaneers. In describing the country, Dampier stated that he was certain that it joined neither Asia, Africa nor America. In 1689 he again visited Australia, in command of H.M.S. *Roebuck*, and on his return to England published an account in which a description is given of trees, flowers, birds and reptiles observed, and of encounters with natives.

It was a question at the end of the seventeenth century whether Tasmania and New Zealand were parts of Australia, or whether they were separated from it, but themselves formed part of a great Antarctic Continent. Lieutenant James Cook's first voyage, though primarily undertaken for the purpose of observing the transit of Venus from Otaheite, had also for its objective to ascertain whether the unexplored part of the southern hemisphere was only an immense mass of water or contained another continent. In command of H.M.S. *Endeavour*, a barque of 370 tons burthen, carrying about 85 persons, and accompanied by Sir Joseph Banks, Dr. Solander the naturalist, Green the astronomer, draughtsmen and servants, Cook, after observing the transit of Venus at Otaheite, turned towards New Zealand, sighting that land on 7th October, 1769, in the neighbourhood of Poverty Bay. Circumnavigating the North and South Islands, he proved that New Zealand was connected neither with the supposed Antarctic Continent nor with Australia, and took formal possession thereof in the name of the British Crown. On 20th April, 1770, at 6 a.m., Cook sighted the Australian mainland at a place he called Point Hicks, naming it after his first-lieutenant, who first saw it. Coasting northwards, Botany Bay was discovered on 20th April, 1770. The *Endeavour* dropped anchor and Cook landed on the same day. Cook sailed along the coast in a northerly direction for nearly 1,300 miles until 11th June, 1770, when the *Endeavour* was seriously damaged by striking a coral reef in the vicinity of Trinity Bay. Repairs occupied nearly two months, and the *Endeavour* then again set her course to the north, sailing through Torres Strait and anchoring in the Downs on 13th July, 1771. In 1772, Cook was put in command of the ships *Resolution* and *Adventure*, with a view to ascertaining whether a great southern continent existed, and having satisfied himself that, even if it did, it lay so far to the south as to be useless for trade and settlement, he returned to England in 1774. Cook's last voyage was undertaken in 1776, and he met his death on 14th February, 1779, by which date practically the whole coast of Australia had been explored. The only remaining discovery of importance was the existence of a channel between Tasmania and Australia. This was made by Flinders and Bass in 1798.

§ 2. The Annexation of Australia.

1. Annexation of Eastern Part of Australia, 1770.—Although representatives of the nations mentioned in the previous section landed or claimed to have landed on the shores of Australia on various occasions during the sixteenth and seventeenth centuries, it was not until 23rd August, 1770, that the history of Australia was brought into definite political connexion with Western civilization. It was on that date that Captain Cook took possession "of the whole eastern coast, from latitude 38° to this place, latitude 10½° S., in right of His Majesty King George the Third." Cook, however, proclaimed British sovereignty only over what are now the eastern parts of New South Wales and Queensland, and formal possession, on behalf of the British Crown, of the whole of the eastern part of the Australian continent and Tasmania was not taken until 26th January, 1788. It was on this last date that Captain Phillip's commission, first issued to him on 12th October, 1780, and amplified on 2nd April, 1787, was read to the people whom he had brought with him in the "First Fleet."

A full historical account of the period referred to may be found in the *Historical Records of New South Wales* Vol. I, parts 1 and 2.

2. *Original Extent of New South Wales.*—The commission appointed Phillip "Captain-General and Governor-in-Chief in and over our territory called New South Wales, extending from the Northern Cape or extremity of the coast called Cape York, in the latitude of ten degrees thirty-seven minutes south, to the southern extremity of the said territory of New South Wales or South Cape, in the latitude of forty-three degrees thirty-nine minutes south, and of all the country inland westward as far as the one hundred and thirty-fifth degree of east longitude reckoning from the meridian of Greenwich, including all the islands adjacent in the Pacific Ocean within the latitudes aforesaid of ten degrees thirty-seven minutes south and forty-three degrees thirty-nine minutes south."

Although in November, 1769, Captain Cook had taken possession of the North Island of New Zealand, and in January, 1770, also of the South Island, it is a matter of doubt whether at the time when Captain Phillip's commission was drawn up New Zealand was considered as one of the "islands adjacent in the Pacific Ocean." The facts that under the Supreme Court Act (Imperial) of 1823 British residents in New Zealand were brought under the jurisdiction of the Court at Sydney, while in 1839 there was a proposal on the part of the British Government to appoint a consul in New Zealand, would leave this an open question, as nothing more than extra-territorial jurisdiction may have been intended. Various hoistings of flags notwithstanding, New Zealand does not appear to have unequivocally become British territory until 1840. In that year, on 29th January, Captain Hobson arrived at the Bay of Islands. On the following day he read the commission, which extended the boundaries of the Colony of New South Wales so as to embrace and comprehend the islands of New Zealand. On 5th February, the Treaty of Waitangi, made with the native chiefs, was signed. Finally, on 21st May, British sovereignty over the islands of New Zealand was explicitly proclaimed.

3. *Extension of New South Wales Westward, 1825.*—On 17th February, 1824, Earl Bathurst advised Sir Thomas Brisbane that he had recommended to His Majesty the dispatch of a ship of war to the north-west coast of New Holland for the purpose of taking possession of the coast between the western coast of Bathurst Island and the eastern side of Coburg Peninsula. Captain James J. Gordon Bremer of H.M.S. *Tamar*, who was selected for the purpose, took possession on 20th September, 1824, of the coast from the 135th to the 129th degree of east longitude. On 16th July, 1825, the whole territory between those boundaries was described in Darling's commission as being within the boundaries of New South Wales, thus increasing its area by 518,134 square miles, and making it, including New Zealand and excluding Tasmania, 2,076,308 square miles, or also excluding New Zealand, 1,972,446 square miles.

4. *Annexation of Western Australia, 1827.*—An expedition under Major Lockyer, sent by Lieutenant-General Sir Ralph Darling, then Governor of New South Wales, to found a settlement at King George III. Sound, sailed from Sydney on 9th November, 1826, landed at the Sound on 26th December following, and hoisted the British flag. Captain Stirling, in command of H.M.S. *Success*, arrived at Sydney a few weeks after the departure of the expedition to King George's Sound. He obtained the Governor's permission to visit Swan River with a view to seizing a position on the western coast and reporting upon its suitability as a place of settlement. Captain Stirling left Sydney on 17th January, 1827, and on his return in the following April submitted a glowing report on what he described as a "rich and romantic country," urging its occupation for the purpose of settlement. He left England in July, 1827, continuing his advocacy—withstanding much discouragement—with unabated enthusiasm. He was at last successful, the result being mainly due to the formation of an association of prospective settlers having capital at their disposal. He was appointed Lieutenant-Governor and with a party of settlers arrived at Garden Island, near the Swan River, in the ship *Parmelia* in June, 1829. On the 2nd of the preceding month Captain Fremantle, in command of H.M.S. *Challenge*, arrived and hoisted the British flag on the south head of Swan River,

again asserting possession of "all that part of New Holland, which is not included within the territory of New South Wales." Thus, before the middle of 1829, the whole territory now known as the Commonwealth of Australia had been constituted a dependency of the United Kingdom.

§ 3. The Creation of the Several Colonies.

1. **New South Wales.**—In Governor Phillip's commission of 1786, the mainland of Australia was divided by the 135th meridian of east longitude into two parts. The earliest colonists believed that the present State of Tasmania was actually joined to the mainland, and it was not till 1798 that the contrary was known. In that year, by sailing through Bass Strait, Flinders and Bass proved that it was an island. The territory of New South Wales, as originally constituted, and of New Zealand, which may be included although Cook's annexation was not properly given effect to until 1840, consisted of 1,584,389 acres. A further area of 518,134 square miles was added in 1825, when the western boundary was extended to the 129th meridian. The territory was subsequently reduced by the separation of various areas to form the other colonies, and at the time of the establishment of the Commonwealth the area of New South Wales was 310,372 square miles.

2. **Tasmania.**—In 1825, Van Diemen's Land, as Tasmania was then called, was politically separated from New South Wales, being constituted a separate colony on 14th June of that year. The area of the colony was 26,215 square miles.

3. **Western Australia.**—The territory westward of the 129th meridian comprising 975,920 square miles was constituted a colony under the name of Western Australia in June, 1829. It was always distinct and independent of New South Wales, though until 1831 the settlement on King George's Sound remained under the latter jurisdiction.

4. **South Australia.**—On 15th August, 1834, the Act 4 and 5 William IV., cap. 95, was passed, creating South Australia a "province," and towards the end of the year 1836 settlement took place. The first Governor, Captain Hindmarsh, R.N., arrived at Holdfast Bay on 28th December, 1836, and on the same day the new colony was officially proclaimed. The new colony embraced 309,850 square miles of territory, lying south of the 26th parallel of south latitude, and between the 141st and 132nd meridians of east longitude. On 10th December, 1861, by the authority of the Imperial Act 24 and 25 Vic., cap. 44, the western boundary of South Australia was extended to coincide with the eastern boundary of Western Australia, namely, the 129th meridian. The area of the extension was approximately 70,220 square miles. Nearly two years later, on 6th July, 1863, the Northern Territory comprising 523,620 square miles was, by letters patent, brought under the jurisdiction of South Australia, which therefore controlled an area of 903,690 square miles.

5. **New Zealand.**—New Zealand, nominally annexed by Captain Cook and formally declared by proclamation in 1840 as a dependency of New South Wales, was, by letters patent of 16th November of that year, constituted a separate colony under the powers of the Act 3 and 4 Vic., cap. 62, of 7th August, 1840. Proclamation of the separation was made on 3rd May, 1841. The area of the colony was 103,862 square miles.

6. **Victoria.**—In 1851, what was known as the "Port Phillip District" of New South Wales, was constituted the colony of Victoria, "bounded on the north and north-west by a straight line drawn from Cape Howe to the nearest source of the River Murray and thence by the course of that river to the eastern boundary of the colony of South Australia." The area of the new colony was 87,884 square miles, and its separate existence took effect from 1st July, 1851, upon the issuing of the writs for the first election of elective members of the Legislative Council.

7. **Queensland.**—The northern squatting districts of Moreton, Darling Downs, Burnett, Wide Bay, Maranoa, Leichhardt and Port Curtis, together with the reputed country of Stanley, were granted an independent administration and formed into a distinct colony under the name of Queensland, by letters patent dated 6th June, 1859.

although separation from New South Wales was not consummated until 10th December, of the same year, upon the assumption of office of the first Governor. The territory comprised in the new colony was so much of the colony of New South Wales as lies northwards of a line commencing on the sea-coast at Point Danger in latitude about 28° 8' south, running westward along the Macpherson and Dividing Ranges and the Dumaresq River to the MacIntyre River, thence downward to the 29th parallel of south latitude, and following that parallel westerly to the 141st meridian of east longitude, which is the eastern boundary of South Australia, together with all the adjacent islands, their members, and appurtenances in the Pacific Ocean. The area of the colony thus constituted was 554,300 square miles. By letters patent dated 13th March, 1861, forwarded by the Colonial Secretary to the Governor of Queensland on 12th April, 1862, the area of Queensland was increased by the annexation of "so much of the colony of New South Wales as lies to the northward of the 26th parallel of south latitude, and between the 141st and 138th meridians of east longitude, together with all and every the adjacent islands, their members, and appurtenances, in the Gulf of Carpentaria." With this addition the area of Queensland became 670,500 square miles.

§ 4. Establishment of the Commonwealth of Australia.

1. *General*.—On 1st January, 1901, the colonies mentioned, with the exception of New Zealand, were federated under the name of the "Commonwealth of Australia," the designation of "Colonies"—except in the case of the Northern Territory, to which the designation "Territory" is applied—being at the same time changed into that of "States." The total area of the Commonwealth of Australia is 2,974,581 square miles. The dates of creation and the areas of its component parts, as determined on the final adjustment of their boundaries, are shown below :—

THE COMMONWEALTH OF AUSTRALIA : AREA, ETC., OF COMPONENT PARTS.

State.	Year of Formation Into Separate Colony.	Present Area in Square Miles.	State.	Year of Formation Into Separate Colony.	Present Area in Square Miles.
New South Wales(a)	1786	310,372	Tasmania ..	1825	26,215
Victoria ..	1851	87,884	Northern Territory	1863	523,620
Queensland ..	1859	670,500			
South Australia ..	1834	380,070	Area of the Com-		
Western Australia	1829	975,920	monwealth ..	..	2,974,581

(a) Including the Australian Capital Territory embracing an area of 911 square miles, and 28 square miles at Jervis Bay. See par. 3 below.

2. *Transfer of the Northern Territory to the Commonwealth*.—On 7th December, 1907, the Commonwealth and the State of South Australia entered into an agreement for the surrender to and acceptance by the Commonwealth of the Northern Territory, subject to approval by the Parliaments of the Commonwealth and the State. This approval was given by the South Australian Parliament under the Northern Territory Surrender Act 1907 (assented to on 14th May, 1908), and by the Commonwealth Parliament under the Northern Territory Acceptance Act 1910 (assented to on 16th November, 1910). The Territory was formally transferred to the Commonwealth on 1st January, 1911, and became the Northern Territory of Australia.

3. *Transfer of the Australian Capital Territory to the Commonwealth*.—On 18th October, 1909, the Commonwealth and the State of New South Wales entered into an agreement for the surrender to and acceptance by the Commonwealth of an area of 911 square miles as the seat of Government of the Commonwealth. In December, 1909, Acts were passed by the Commonwealth and New South Wales Parliaments approving the agreement, and on 5th December, 1910, a proclamation was issued vesting the Territory in the Commonwealth on and from 1st January, 1911. By the Jervis Bay

Territory Acceptance Act 1915, an area of 28 square miles at Jervis Bay, surrendered by New South Wales according to an agreement made in 1913, was accepted by the Commonwealth, and was transferred as from 4th September, 1915.

4. **Transfer of British New Guinea or Papua.**—Under the administration of the Commonwealth, but not included in it, is British New Guinea or Papua, finally annexed by the British Government in 1884. This Territory was for a number of years administered by the Queensland Government, but was transferred to the Commonwealth by proclamation on 1st September, 1906, under the authority of the Papua Act (Commonwealth) of 16th November, 1905. The area of Papua is about 90,540 square miles.

5. **Transfer of Norfolk Island.**—Although administered for many years by the Government of New South Wales, this Island was a separate Crown Colony until 1st July, 1914, when it was transferred to the Commonwealth under the authority of the Norfolk Island Act 1913. The Island is situated in latitude $29^{\circ} 3' 45''$ S. longitude $167^{\circ} 58' 6''$ E., and comprises an area of 8,528 acres.

6. **Territory of New Guinea.**—It was agreed by the Allied and Associated Powers that a mandate should be conferred on Australia for the government of the former German territories and islands situated in latitude between the Equator and 8° S., and in longitude between 141° E. and 159.25° E. The mandate was issued by the League of Nations on 17th December, 1920. The Governor-General of the Commonwealth was authorized to accept the mandate by the New Guinea Act 1920, which also declared the area to be a Territory under the authority of the Commonwealth by the name of the Territory of New Guinea. The Territory comprises about 93,000 square miles, and the administration under the mandate dated from 9th May, 1921.

7. **Nauru.**—In 1919 the Governments of the United Kingdom, Australia and New Zealand entered into an agreement to make provision for the exercise of the mandate conferred on the British Empire for the administration of the island of Nauru, and for the mining of the phosphate deposits thereon. The island is situated in longitude 166° E., 26 miles south of the Equator, and comprises about 5,400 acres. The agreement provided that the administration of the island should be vested in an administrator, the first appointment to be made by the Commonwealth Government, and thereafter in such manner as the three Governments decided. The agreement was approved by the Commonwealth Parliament in the Nauru Island Agreement Act 1919, and a supplementary agreement of 30th May, 1923, giving the Government immediately responsible for the administration greater powers of control over the Administrator, was approved in 1932. The administration under the mandate has operated from 17th December, 1920, and so far the administrators have been appointed by the Commonwealth Government.

8. **Territory of Ashmore and Cartier Islands.**—By Imperial Order in Council dated 23rd July, 1931, Ashmore Islands, known as Middle, East and West Islands, and Cartier Island, situated in the Indian Ocean off the North-west Coast of Australia, were placed under the authority of the Commonwealth. The Islands were accepted by the Commonwealth in the Ashmore and Cartier Islands Acceptance Act 1933 under the name of the Territory of Ashmore and Cartier Islands and were transferred on 10th May, 1934.

9. **Australian Antarctic Territory.**—An Imperial Order in Council, 7th February, 1933, placed under the authority of the Commonwealth the Antarctic Territories, comprising all the islands and territory, other than Adélie Land, situated south of 60° S. latitude, and lying between 160° E. longitude and 45° E. longitude. The Territory was accepted by the Commonwealth on 24th August, 1936, under the name of the Australian Antarctic Territory in the Australian Antarctic Territory Acceptance Act 1933.

§ 5. The Exploration of Australia.

A fairly complete, though brief, account of the exploration of Australia was given in Official Year Book No. 2 (pp. 20-30), and a summary of the more important facts relating to the subject was embodied in this Chapter in succeeding issues up to and including No. 22.

§ 6. The Constitutions of the States and of the Commonwealth.

1. *General.*—Information regarding the development of the Constitutions of the various Colonies (now States), together with a brief history of the Federal movement in Australia, was embodied in this Chapter in issues of the Official Year Book up to No. 22.

2. *Commonwealth Constitution Act.*—The Commonwealth of Australia Constitution Act, 63 and 64 Vict., Chapter 12, namely: "An Act to constitute the Commonwealth of Australia," as amended by the Constitution Alteration (Senate Elections) 1906, the Constitution Alteration (State Debts) 1909, and the Constitution Alteration (State Debts) 1928 is given *in extenso* hereunder.

THE COMMONWEALTH OF AUSTRALIA CONSTITUTION ACT, 63 & 64 VICT., CHAPTER 12.

An Act to constitute the Commonwealth of Australia. [9th July, 1900.]

WHEREAS the people of New South Wales, Victoria, South Australia, Queensland and Tasmania, humbly relying on the blessing of Almighty God, have agreed to unite in one indissoluble Federal Commonwealth under the Crown of the United Kingdom of Great Britain and Ireland, and under the Constitution hereby established:

And whereas it is expedient to provide for the admission into the Commonwealth of other Australasian Colonies and possessions of the Queen:

Be it therefore enacted by the Queen's Most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:—

1. This Act may be cited as the Commonwealth of Australia Constitution Act.
2. The provisions of this Act referring to the Queen shall extend to Her Majesty's heirs and successors in the sovereignty of the United Kingdom.
3. It shall be lawful for the Queen, with the advice of the Privy Council, to declare by proclamation that, on and after a day therein appointed, not being later than one year after the passing of this Act, the people of New South Wales, Victoria, South Australia, Queensland, and Tasmania, and also, if Her Majesty is satisfied that the people of Western Australia have agreed thereto, of Western Australia, shall be united in a Federal Commonwealth under the name of the Commonwealth of Australia. But the Queen may, at any time after the proclamation, appoint a Governor-General for the Commonwealth.
4. The Commonwealth shall be established, and the Constitution of the Commonwealth shall take effect, on and after the day so appointed. But the Parliaments of the several colonies may at any time after the passing of this Act make any such laws, to come into operation on the day so appointed, as they might have made if the Constitution had taken effect at the passing of this Act.
5. This Act, and all laws made by the Parliament of the Commonwealth under the Constitution, shall be binding on the courts, judges, and people of every State and of every part of the Commonwealth, notwithstanding anything in the laws of any State; and the laws of the Commonwealth shall be in force on all British ships, the Queen's ships of war excepted, whose first port of clearance and whose port of destination are in the Commonwealth.
6. "The Commonwealth" shall mean the Commonwealth of Australia as established under this Act.
- "The States" shall mean such of the colonies of New South Wales, New Zealand, Queensland, Tasmania, Victoria, Western Australia, and South Australia, including the northern territory of South Australia, as for the time being are parts of the Commonwealth, and such colonies or territories as may be admitted into or established by the Commonwealth as States; and each of such parts of the Commonwealth shall be called "a State."
- "Original States" shall mean such States as are parts of the Commonwealth at its establishment.

7. The Federal Council of Australasia Act, 1885, is hereby repealed, but so as not to affect any laws passed by the Federal Council of Australasia and in force at the establishment of the Commonwealth.

Any such law may be repealed as to any State by the Parliament of the Commonwealth, or as to any colony not being a State by the Parliament thereof.

8. After the passing of this Act the Colonial Boundaries Act, 1895, shall not apply to any colony which becomes a State of the Commonwealth; but the Commonwealth shall be taken to be a self-governing colony for the purposes of that Act.

9. The Constitution of the Commonwealth shall be as follows :—

THE CONSTITUTION.

This Constitution is divided as follows :—

- Chapter I.—The Parliament :
 - Part I.—General :
 - Part II.—The Senate :
 - Part III.—The House of Representatives :
 - Part IV.—Both Houses of the Parliament :
 - Part V.—Powers of the Parliament :
- Chapter II.—The Executive Government :
- Chapter III.—The Judicature :
- Chapter IV.—Finance and Trade :
- Chapter V.—The States :
- Chapter VI.—New States :
- Chapter VII.—Miscellaneous :
- Chapter VIII.—Alteration of the Constitution.

The Schedule.

CHAPTER I.—THE PARLIAMENT.

PART I.—GENERAL.

1. The legislative power of the Commonwealth shall be vested in a Federal Parliament, which shall consist of the Queen, a Senate, and a House of Representatives, and which is hereinafter called “The Parliament,” or “The Parliament of the Commonwealth.”

2. A Governor-General appointed by the Queen shall be Her Majesty’s representative in the Commonwealth, and shall have and may exercise in the Commonwealth during the Queen’s pleasure, but subject to this Constitution, such powers and functions of the Queen as Her Majesty may be pleased to assign to him.

3. There shall be payable to the Queen out of the Consolidated Revenue Fund of the Commonwealth, for the salary of the Governor-General, an annual sum which, until the Parliament otherwise provides, shall be ten thousand pounds.

The salary of a Governor-General shall not be altered during his continuance in office.

4. The provisions of this Constitution relating to the Governor-General extend and apply to the Governor-General for the time being, or such person as the Queen may appoint to administer the Government of the Commonwealth; but no such person shall be entitled to receive any salary from the Commonwealth in respect of any other office during his administration of the Government of the Commonwealth.

5. The Governor-General may appoint such times for holding the sessions of the Parliament as he thinks fit, and may also from time to time, by Proclamation or otherwise, prorogue the Parliament, and may in like manner dissolve the House of Representatives.

After any general election the Parliament shall be summoned to meet not later than thirty days after the day appointed for the return of the writs.

The Parliament shall be summoned to meet not later than six months after the establishment of the Commonwealth.

6. There shall be a session of the Parliament once at least in every year, so that twelve months shall not intervene between the last sitting of the Parliament in one session and its first sitting in the next session.

PART II.—THE SENATE.

7. The Senate shall be composed of senators for each State, directly chosen by the people of the State, voting, until the Parliament otherwise provides, as one electorate.

But until the Parliament of the Commonwealth otherwise provides, the Parliament of the State of Queensland, if that State be an Original State, may make laws dividing the State into divisions and determining the number of senators to be chosen for each division, and in the absence of such provision the State shall be one electorate.

Until the Parliament otherwise provides there shall be six senators for each Original State. The Parliament may make laws increasing or diminishing the number of senators for each State, but so that equal representation of the several Original States shall be maintained and that no Original State shall have less than six senators.

The senators shall be chosen for a term of six years, and the names of the senators chosen for each State shall be certified by the Governor to the Governor-General.

8. The qualification of electors of senators shall be in each State that which is prescribed by this Constitution, or by the Parliament, as the qualification for electors of members of the House of Representatives; but in the choosing of senators each elector shall vote only once.

9. The Parliament of the Commonwealth may make laws prescribing the method of choosing senators, but so that the method shall be uniform for all the States. Subject to any such law, the Parliament of each State may make laws prescribing the method of choosing the senators for that State.

The Parliament of a State may make laws for determining the times and places of elections of senators for the State.

10. Until the Parliament otherwise provides, but subject to this Constitution, the laws in force in each State, for the time being, relating to elections for the more numerous House of the Parliament of the State shall, as nearly as practicable, apply to elections of senators for the State.

11. The Senate may proceed to the despatch of business, notwithstanding the failure of any State to provide for its representation in the Senate.

12. The Governor of any State may cause writs to be issued for elections of senators for the State. In case of the dissolution of the Senate the writs shall be issued within ten days from the proclamation of such dissolution.

13. As soon as may be after the Senate first meets, and after each first meeting of the Senate following a dissolution thereof, the Senate shall divide the Senators chosen for each State into two classes, as nearly equal in number as practicable; and the places of the Senators of the first class shall become vacant at the expiration of [the third year] *three years*,* and the places of those of the second class at the expiration of [the sixth year] *six years*,* from the beginning of their term of service; and afterwards the places of senators shall become vacant at the expiration of six years from the beginning of their term of service.

The election to fill vacant places shall be made [in the year at the expiration of which] *within one year before** the places are to become vacant.

For the purposes of this section the term of service of a senator shall be taken to begin on the first day of [January] *July** following the day of his election, except in the cases of the first election and of the election next after any dissolution of the Senate, when it shall be taken to begin on the first day of [January] *July** preceding the day of his election.

14. Whenever the number of senators for a State is increased or diminished, the Parliament of the Commonwealth may make such provision for the vacating of the places of senators for the State as it deems necessary to maintain regularity in the rotation.

15. If the place of a Senator becomes vacant before the expiration of his term of service, the Houses of Parliament of the State for which he was chosen shall, sitting and voting together, choose a person to hold the place until the expiration of the term, or until the election of a successor as hereinafter provided, whichever first happens. But if the Houses of Parliament of the State are not in session at the time when the vacancy

* As amended by Section 2 of the Constitution Alteration (Senate Elections) 1906. The words in square brackets have been repealed; amendments are shown in italics.

is notified, the Governor of the State, with the advice of the Executive Council thereof, may appoint a person to hold the place until the expiration of fourteen days after the beginning of the next session of the Parliament of the State, or until the election of a successor, whichever first happens.

At the next general election of members of the House of Representatives, or at the next election of senators for the State, whichever first happens, a successor shall, if the term has not then expired, be chosen to hold the place from the date of his election until the expiration of the term.

The name of any senator so chosen or appointed shall be certified by the Governor of the State to the Governor-General.

16. The qualifications of a senator shall be the same as those of a member of the House of Representatives.

17. The Senate shall, before proceeding to the despatch of any other business, choose a senator to be the President of the Senate; and as often as the office of President becomes vacant the Senate shall again choose a senator to be the President.

The President shall cease to hold his office if he ceases to be a senator. He may be removed from office by a vote of the Senate, or he may resign his office or his seat by writing addressed to the Governor-General.

18. Before or during any absence of the President, the Senate may choose a senator to perform his duties in his absence.

19. A senator may, by writing addressed to the President, or to the Governor-General if there is no President or if the President is absent from the Commonwealth, resign his place, which thereupon shall become vacant.

20. The place of a senator shall become vacant if for two consecutive months of any session of the Parliament he, without the permission of the Senate, fails to attend the Senate.

21. Whenever a vacancy happens in the Senate, the President, or if there is no President or if the President is absent from the Commonwealth the Governor-General, shall notify the same to the Governor of the State in the representation of which the vacancy has happened.

22. Until the Parliament otherwise provides, the presence of at least one-third of the whole number of the senators shall be necessary to constitute a meeting of the Senate for the exercise of its powers.

23. Questions arising in the Senate shall be determined by a majority of votes, and each senator shall have one vote. The President shall in all cases be entitled to a vote; and when the votes are equal the question shall pass in the negative.

PART III.—THE HOUSE OF REPRESENTATIVES.

24. The House of Representatives shall be composed of members directly chosen by the people of the Commonwealth, and the number of such members shall be, as nearly as practicable, twice the number of the senators.

The number of members chosen in the several States shall be in proportion to the respective numbers of their people, and shall, until the Parliament otherwise provides, be determined, whenever necessary, in the following manner:—

(i) A quota shall be ascertained by dividing the number of the people of the Commonwealth, as shown by the latest statistics of the Commonwealth, by twice the number of the senators;

(ii) The number of members to be chosen in each State shall be determined by dividing the number of the people of the State, as shown by the latest statistics of the Commonwealth, by the quota; and if on such division there is a remainder greater than one-half of the quota, one more member shall be chosen in the State.

But notwithstanding anything in this section, five members at least shall be chosen in each Original State.

25. For the purposes of the last section, if by the law of any State all persons of any race are disqualified from voting at elections for the more numerous House of the Parliament of the State, then, in reckoning the number of the people of the State or of the Commonwealth, persons of that race resident in that State shall not be counted.

26. Notwithstanding anything in section twenty-four, the number of members to be chosen in each State at the first election shall be as follows :—

New South Wales ..	23	South Australia ..	6
Victoria ..	20	Tasmania ..	5
Queensland ..	8		

Provided that if Western Australia is an Original State, the numbers shall be as follows :—

New South Wales ..	26	South Australia ..	7
Victoria ..	23	Western Australia ..	5
Queensland ..	9	Tasmania ..	5

27. Subject to this Constitution, the Parliament may make laws for increasing or diminishing the number of the members of the House of Representatives.

28. Every House of Representatives shall continue for three years from the first meeting of the House, and no longer, but may be sooner dissolved by the Governor-General.

29. Until the Parliament of the Commonwealth otherwise provides, the Parliament of any State may make laws for determining the divisions in each State for which members of the House of Representatives may be chosen, and the number of members to be chosen for each division. A division shall not be formed out of parts of different States.

In the absence of other provisions, each State shall be one electorate.

30. Until the Parliament otherwise provides, the qualification of electors of members of the House of Representatives shall be in each State that which is prescribed by the law of the State as the qualification of electors of the more numerous House of Parliament of the State; but in the choosing of members each elector shall vote only once.*

31. Until the Parliament otherwise provides, but subject to this Constitution, the laws in force in each State for the time being relating to elections for the more numerous House of the Parliament of the State shall, as nearly as practicable, apply to elections in the State of members of the House of Representatives.

32. The Governor-General in Council may cause writs to be issued for general elections of members of the House of Representatives.

After the first general election, the writs shall be issued within ten days from the expiry of a House of Representatives or from the proclamation of a dissolution thereof.

33. Whenever a vacancy happens in the House of Representatives, the Speaker shall issue his writ for the election of a new member, or if there is no Speaker or if he is absent from the Commonwealth the Governor-General in Council may issue the writ.

34. Until the Parliament otherwise provides, the qualifications of a member of the House of Representatives shall be as follows :—

(i) He must be of the full age of twenty-one years, and must be an elector entitled to vote at the election of members of the House of Representatives, or a person qualified to become such elector, and must have been for three years at the least a resident within the limits of the Commonwealth as existing at the time when he is chosen :

(ii) He must be a subject of the Queen, either natural-born or for at least five years naturalized under a law of the United Kingdom, of a colony which has become or becomes a State, or of the Commonwealth, or of a State.

35. The House of Representatives shall, before proceeding to the despatch of any other business, choose a member to be the Speaker of the House, and as often as the office of Speaker becomes vacant the House shall again choose a member to be the Speaker.

* The Parliament has otherwise provided, by means of the Commonwealth Electoral Act 1918-1934 Section 39 (repealing an earlier provision made by the Commonwealth Franchise Act 1902).

The Speaker shall cease to hold his office if he ceases to be a member. He may be removed from office by a vote of the House, or he may resign his office or his seat by writing addressed to the Governor-General.

36. Before or during any absence of the Speaker, the House of Representatives may choose a member to perform his duties in his absence.

37. A member may by writing addressed to the Speaker, or to the Governor-General if there is no Speaker or if the Speaker is absent from the Commonwealth, resign his place, which thereupon shall become vacant.

38. The place of a member shall become vacant if for two consecutive months of any session of the Parliament he, without the permission of the House, fails to attend the House.

39. Until the Parliament otherwise provides, the presence of at least one-third of the whole number of the members of the House of Representatives shall be necessary to constitute a meeting of the House for the exercise of its powers.

40. Questions arising in the House of Representatives shall be determined by a majority of votes other than that of the Speaker. The Speaker shall not vote unless the numbers are equal, and then he shall have a casting vote.

PART IV.—BOTH HOUSES OF THE PARLIAMENT.

41. No adult person who has or acquires a right to vote at elections for the more numerous House of the Parliament of a State shall, while the right continues, be prevented by any law of the Commonwealth from voting at elections for either House of the Parliament of the Commonwealth.

42. Every senator and every member of the House of Representatives shall before taking his seat make and subscribe before the Governor-General, or some person authorized by him, an oath or affirmation of allegiance in the form set forth in the schedule to this Constitution.

43. A member of either House of the Parliament shall be incapable of being chosen or of sitting as a member of the other House.

44. Any person who—

- (i) Is under any acknowledgement of allegiance, obedience, or adherence to a foreign power, or is a subject or a citizen or entitled to the rights or privileges of a subject or a citizen of a foreign power: or
- (ii) Is attainted of treason, or has been convicted and is under sentence, or subject to be sentenced, for any offence punishable under the law of the Commonwealth or of a State by imprisonment for one year or longer: or
- (iii) Is an undischarged bankrupt or insolvent: or
- (iv) Holds any office of profit under the Crown, or any pension payable during the pleasure of the Crown out of any of the revenues of the Commonwealth: or
- (v) Has any direct or indirect pecuniary interest in any agreement with the Public Service of the Commonwealth otherwise than as a member and in common with the other members of an incorporated company consisting of more than twenty-five persons:

shall be incapable of being chosen or of sitting as a senator or a member of the House of Representatives.

But sub-section iv. does not apply to the office of any of the Queen's Ministers of State for the Commonwealth, or of any of the Queen's Ministers for a State, or to the receipt of pay, half-pay, or a pension by any person as an officer or member of the Queen's navy or army, or to the receipt of pay as an officer or member of the naval or military forces of the Commonwealth by any person whose services are not wholly employed by the Commonwealth:

45. If a senator or member of the House of Representatives—

- (i) Becomes subject to any of the disabilities mentioned in the last preceding section: or

- (ii) Takes the benefit, whether by assignment, composition, or otherwise, of any law relating to bankrupt or insolvent debtors : or
- (iii) Directly or indirectly takes or agrees to take any fee or honorarium for services rendered to the Commonwealth, or for services rendered in the Parliament to any person or State :

his place shall thereupon become vacant.

46. Until the Parliament otherwise provides, any person declared by this Constitution to be incapable of sitting as a senator or as a member of the House of Representatives shall, for every day on which he so sits, be liable to pay the sum of one hundred pounds to any person who sues for it in any court of competent jurisdiction.

47. Until the Parliament otherwise provides, any question respecting the qualification of a senator or of a member of the House of Representatives, or respecting a vacancy in either House of the Parliament, and any question of a disputed election to either House, shall be determined by the House in which the question arises.

48. Until the Parliament otherwise provides, each senator and each member of the House of Representatives shall receive an allowance of four hundred pounds a year, to be reckoned from the day on which he takes his seat.*

49. The powers, privileges, and immunities of the Senate and of the House of Representatives, and of the members and the committees of each House, shall be such as are declared by the Parliament, and until declared shall be those of the Commons House of Parliament of the United Kingdom, and of its members and committees, at the establishment of the Commonwealth.

50. Each House of the Parliament may make rules and orders with respect to—

- (i) The mode in which its powers, privileges, and immunities may be exercised and upheld :
- (ii) The order and conduct of its business and proceedings either separately or jointly with the other House.

PART V.—POWERS OF THE PARLIAMENT.†

51. The Parliament shall, subject to this Constitution, have power to make laws for the peace, order, and good government of the Commonwealth with respect to—

- (i) Trade and commerce with other countries, and among the States :
- (ii) Taxation ; but so as not to discriminate between States or parts of States :
- (iii) Bounties on the production or export of goods, but so that such bounties shall be uniform throughout the Commonwealth :
- (iv) Borrowing money on the public credit of the Commonwealth :
- (v) Postal, telegraphic, telephonic, and other like services :
- (vi) The naval and military defence of the Commonwealth and of the several States, and the control of the forces to execute and maintain the laws of the Commonwealth :
- (vii) Lighthouses, lightships, beacons and buoys :
- (viii) Astronomical and meteorological observations :
- (ix) Quarantine :
- (x) Fisheries in Australian waters beyond territorial limits :
- (xi) Census and statistics :
- (xii) Currency, coinage, and legal tender :
- (xiii) Banking, other than State banking : also State banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money :

* The Parliamentary allowance was raised to £600 per annum in 1907 and to £1,000 per annum in 1920, but in the case of Ministers, the Presiding Officers of the two Houses, and the Chairmen of Committees, the allowance was fixed at £800 per annum. Several reductions under financial emergency legislation reduced the allowance to £750 per annum in 1932, but it was gradually restored to £1,000, the last reduction being removed in May, 1938. The latter Act also increased the allowance to holders of Parliamentary Office to £1,000 per annum.

† Particulars of proposed laws which were submitted to referenda are referred to in Chapter III., General Government.

- (xiv) Insurance, other than State insurance ; also State insurance extending beyond the limits of the State concerned :
- (xv) Weights and measures :
- (xvi) Bills of exchange and promissory notes :
- (xvii) Bankruptcy and insolvency :
- (xviii) Copyrights, patents of inventions and designs, and trade marks :
- (xix) Naturalization and aliens :
- (xx) Foreign corporations, and trading or financial corporations formed within the limits of the Commonwealth :
- (xxi) Marriage :
- (xxii) Divorce and matrimonial causes ; and in relation thereto, parental rights, and the custody and guardianship of infants :
- (xxiii) Invalid and old-age pensions :
- (xxiv) The service and execution throughout the Commonwealth of the civil and criminal process and the judgments of the courts of the States :
- (xxv) The recognition throughout the Commonwealth of the laws, the public Acts and records, and the judicial proceedings of the States :
- (xxvi) The people of any race, other than the aboriginal race in any State, for whom it is deemed necessary to make special laws :
- (xxvii) Immigration and emigration :
- (xxviii) The influx of criminals :
- (xxix) External affairs :
- (xxx) The relations of the Commonwealth with the islands of the Pacific :
- (xxxi) The acquisition of property on just terms from any State or person for any purpose in respect of which the Parliament has power to make laws :
- (xxxii) The control of railways with respect to transport for the naval and military purposes of the Commonwealth :
- (xxxiii) The acquisition, with the consent of a State, of any railways of the State on terms arranged between the Commonwealth and the State :
- (xxxiv) Railway construction and extension in any State with the consent of that State :
- (xxxv) Conciliation and arbitration for the prevention and settlement of industrial disputes extending beyond the limits of any one State :
- (xxxvi) Matters in respect of which this Constitution makes provision until the Parliament otherwise provides :
- (xxxvii) Matters referred to the Parliament of the Commonwealth by the Parliament or Parliaments of any State or States, but so that the law shall extend only to States by whose Parliaments the matter is referred, or which afterwards adopt the law :
- (xxxviii) The exercise within the Commonwealth, at the request or with the concurrence of the Parliaments of all the States directly concerned, of any power which can at the establishment of this Constitution be exercised only by the Parliament of the United Kingdom or by the Federal Council of Australasia :
- (xxxix) Matters incidental to the execution of any power vested by this Constitution in the Parliament or in either House thereof, or in the Government of the Commonwealth, or in the Federal Judicature, or in any department or officer of the Commonwealth.

52. The Parliament shall, subject to this Constitution, have exclusive power to make laws for the peace, order, and good government of the Commonwealth with respect to—

- (i) The seat of Government of the Commonwealth, and all places acquired by the Commonwealth for public purposes :
- (ii) Matters relating to any department of the public service the control of which is by this Constitution transferred to the Executive Government of the Commonwealth :
- (iii) Other matters declared by this Constitution to be within the exclusive power of the Parliament.

53. Proposed laws appropriating revenue or moneys, or imposing taxation, shall not originate in the Senate. But a proposed law shall not be taken to appropriate revenue or moneys, or to impose taxation, by reason only of its containing provisions for the imposition or appropriation of fines or other pecuniary penalties, or for the demand or payment or appropriation of fees for licences, or fees for services under the proposed law.

The Senate may not amend proposed laws imposing taxation, or proposed laws appropriating revenue or moneys for the ordinary annual services of the Government.

The Senate may not amend any proposed laws so as to increase any proposed charge or burden on the people.

The Senate may at any stage return to the House of Representatives any proposed law which the Senate may not amend, requesting, by message, the omission or amendment of any items or provisions therein. And the House of Representatives may, if it thinks fit, make any of such omissions or amendments, with or without modifications.

Except as provided in this section, the Senate shall have equal power with the House of Representatives in respect of all proposed laws.

54. The proposed law which appropriates revenue or moneys for the ordinary annual services of the Government shall deal only with such appropriation.

55. Laws imposing taxation shall deal only with the imposition of taxation, and any provisions therein dealing with any other matter shall be of no effect.

Laws imposing taxation, except laws imposing duties of customs or of excise, shall deal with one subject of taxation only; but laws imposing duties of customs shall deal with duties of customs only, and laws imposing duties of excise shall deal with duties of excise only.

56. A vote, resolution, or proposed law for the appropriation of revenue or moneys shall not be passed unless the purpose of the appropriation has in the same session been recommended by message of the Governor-General to the House in which the proposal originated.

57. If the House of Representatives passes any proposed law, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, and if after an interval of three months the House of Representatives, in the same or the next session, again passes the proposed law with or without any amendments which have been made, suggested, or agreed to by the Senate, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, the Governor-General may dissolve the Senate and the House of Representatives simultaneously. But such dissolution shall not take place within six months before the date of the expiry of the House of Representatives by effluxion of time.

If after such dissolution the House of Representatives again passes the proposed law, with or without any amendments which have been made, suggested, or agreed to by the Senate, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, the Governor-General may convene a joint sitting of the members of the Senate and of the House of Representatives.

The members present at the joint sitting may deliberate and shall vote together upon the proposed law as last proposed by the House of Representatives, and upon amendments, if any, which have been made therein by one House and not agreed to by the other, and any such amendments which are affirmed by an absolute majority of the total number of the members of the Senate and House of Representatives shall be taken to have been carried, and if the proposed law, with the amendments, if any, so carried is affirmed by an absolute majority of the total number of members of the Senate and House of Representatives, it shall be taken to have been duly passed by both Houses of the Parliament, and shall be presented to the Governor-General for the Queen's assent.

58. When a proposed law passed by both Houses of the Parliament is presented to the Governor-General for the Queen's assent, he shall declare, according to his discretion, but subject to this Constitution, that he assents in the Queen's name, or that he withholds assent, or that he reserves the law for the Queen's pleasure.

The Governor-General may return to the House in which it originated any proposed law so presented to him, and may transmit therewith any amendments which he may recommend, and the Houses may deal with the recommendation.

59. The Queen may disallow any law within one year from the Governor-General's assent, and such disallowance on being made known by the Governor-General by speech or message to each of the Houses of the Parliament, or by Proclamation, shall annul the law from the day when the disallowance is so made known.

60. A proposed law reserved for the Queen's pleasure shall not have any force unless and until within two years from the day on which it was presented to the Governor-General for the Queen's assent the Governor-General makes known, by speech or message to each of the Houses of the Parliament, or by Proclamation, that it has received the Queen's assent.

CHAPTER II.—THE EXECUTIVE GOVERNMENT.

61. The executive power of the Commonwealth is vested in the Queen and is exercisable by the Governor-General as the Queen's representative, and extends to the execution and maintenance of this Constitution, and of the laws of the Commonwealth.

62. There shall be a Federal Executive Council to advise the Governor-General in the government of the Commonwealth, and the members of the Council shall be chosen and summoned by the Governor-General and sworn as Executive Councillors, and shall hold office during his pleasure.

63. The provisions of this Constitution referring to the Governor-General in Council shall be construed as referring to the Governor-General acting with the advice of the Federal Executive Council.

64. The Governor-General may appoint officers to administer such departments of State of the Commonwealth as the Governor-General in Council may establish.

Such officers shall hold office during the pleasure of the Governor-General. They shall be members of the Federal Executive Council, and shall be the Queen's Ministers of State for the Commonwealth.

After the first general election no Minister of State shall hold office for a longer period than three months unless he is or becomes a senator or a member of the House of Representatives.

65. Until the Parliament otherwise provides, the Ministers of State shall not exceed seven in number, and shall hold such offices as the Parliament prescribes, or, in the absence of provision, as the Governor-General directs.*

66. There shall be payable to the Queen out of the Consolidated Revenue Fund of the Commonwealth, for the salaries of the Ministers of State, an annual sum which until the Parliament otherwise provides, shall not exceed twelve thousand pounds a year.*

67. Until the Parliament otherwise provides, the appointment and removal of all other officers of the Executive Government of the Commonwealth shall be vested in the Governor-General in Council, unless the appointment is delegated by the Governor-General in Council or by a law of the Commonwealth to some other authority.

68. The command in chief of the naval and military forces of the Commonwealth is vested in the Governor-General as the Queen's representative.

69. On a date or dates to be proclaimed by the Governor-General after the establishment of the Commonwealth the following departments of the public service in each State shall become transferred to the Commonwealth :—

Posts, telegraphs, and telephones :	Lighthouses, lightships, beacons, and buoys :
Naval and military defence :	Quarantine.

* The Ministers of State were increased in 1915 to eight, in 1917 to nine, in 1935 to ten, in 1938 to eleven, and in 1941 to nineteen. A sum of £1,650 was added to the annual appropriation for Ministers' salaries for each additional Minister and £800 per annum was allowed each Minister by the Parliamentary Allowances Act 1920. Reductions under financial emergency legislation reached their maximum in 1932, when Ministers' salaries were reduced by 30 per cent. and their allowances as members by 25 per cent.; the reductions were gradually removed, finally in May, 1933, by the Parliamentary Salaries Adjustment Act 1933. This Act also made provision for an additional allowance of £1,500 per annum to the Prime Minister, and increased the parliamentary allowance to Ministers from £800 to £1,000 per annum. The Ministers of State Act 1941, made provision for the Salaries of Ministers, the appropriation not to exceed £22,750.

But the departments of customs and of excise in each State shall become transferred to the Commonwealth on its establishment.

70. In respect of matters which, under this Constitution, pass to the Executive Government of the Commonwealth, all powers and functions which at the establishment of the Commonwealth are vested in the Governor of a Colony, or in the Governor of a Colony with the advice of his Executive Council, or in any authority of a Colony, shall vest in the Governor-General, or in the Governor-General in Council, or in the authority exercising similar powers under the Commonwealth, as the case requires.

CHAPTER III.—THE JUDICATURE.

71. The judicial power of the Commonwealth shall be vested in a Federal Supreme Court, to be called the High Court of Australia, and in such other federal courts as the Parliament creates, and in such other courts as it invests with federal jurisdiction. The High Court shall consist of a Chief Justice, and so many other Justices, not less than two, as the Parliament prescribes.

72. The Justices of the High Court and of the other Courts created by the Parliament—

- (i) Shall be appointed by the Governor-General in Council :
- (ii) Shall not be removed except by the Governor-General in Council, on an address from both Houses of the Parliament in the same session, praying for such removal on the ground of proved misbehaviour or incapacity :
- (iii) Shall receive such remuneration as the Parliament may fix ; but the remuneration shall not be diminished during their continuance in office.

73. The High Court shall have jurisdiction, with such exception and subject to such regulations as the Parliament prescribes, to hear and determine appeals from all judgments, decrees, orders, and sentences—

- (i) Of any Justice or Justices exercising the original jurisdiction of the High Court :
 - (ii) Of any other federal court, or court exercising federal jurisdiction ; or of the Supreme Court of any State, or of any other court of any State from which at the establishment of the Commonwealth an appeal lies to the Queen in Council :
 - (iii) Of the Inter-State Commission, but as to questions of law only :
- and the judgment of the High Court in all such cases shall be final and conclusive.

But no exception or regulation prescribed by the Parliament shall prevent the High Court from hearing and determining any appeal from the Supreme Court of a State in any matter in which at the establishment of the Commonwealth an appeal lies from such Supreme Court to the Queen in Council.

Until the Parliament otherwise provides, the conditions of and restrictions on appeals to the Queen in Council from the Supreme Courts of the several States shall be applicable to appeals from them to the High Court.

74. No appeal shall be permitted to the Queen in Council from a decision of the High Court upon any question, howsoever arising, as to the limits *inter se* of the Constitutional powers of the Commonwealth and those of any State or States, or as to the limits *inter se* of the Constitutional powers of any two or more States, unless the High Court shall certify that the question is one which ought to be determined by Her Majesty in Council.

The High Court may so certify if satisfied that for any special reason the certificate should be granted, and thereupon an appeal shall lie to Her Majesty in Council on the question without further leave.

Except as provided in this section, this Constitution shall not impair any right which the Queen may be pleased to exercise by virtue of Her Royal prerogative to grant special leave of appeal from the High Court to Her Majesty in Council. The Parliament may make laws limiting the matters in which such leave may be asked, but proposed laws containing any such limitation shall be reserved by the Governor-General for Her Majesty's pleasure.

75. In all matters—

- (i) Arising under any treaty :
- (ii) Affecting consuls or other representatives of other countries :
- (iii) In which the Commonwealth, or a person suing or being sued on behalf of the Commonwealth, is a party :
- (iv) Between States, or between residents of different States, or between a State and a resident of another State :
- (v) In which a writ of Mandamus or prohibition or an injunction is sought against an officer of the Commonwealth :

the High Court shall have original jurisdiction.

76. The Parliament may make laws conferring original jurisdiction on the High Court in any matter—

- (i) Arising under this Constitution, or involving its interpretation :
- (ii) Arising under any laws made by the Parliament :
- (iii) Of Admiralty and maritime jurisdiction :
- (iv) Relating to the same subject-matter claimed under the laws of different States.

77. With respect to any of the matters mentioned in the last two sections the Parliament may make laws—

- (i) Defining the jurisdiction of any federal court other than the High Court :
- (ii) Defining the extent to which the jurisdiction of any federal court shall be exclusive of that which belongs to or is invested in the courts of the States :
- (iii) Investing any court of a State with federal jurisdiction.

78. The Parliament may make laws conferring rights to proceed against the Commonwealth or a State in respect of matters within the limits of the judicial power.

79. The federal jurisdiction of any court may be exercised by such number of judges as the Parliament prescribes.

80. The trial on indictment of any offence against any law of the Commonwealth shall be by jury, and every such trial shall be held in the State where the offence was committed, and if the offence was not committed within any State the trial shall be held at such place or places as the Parliament prescribes.

CHAPTER IV.—FINANCE AND TRADE.

81. All revenues or moneys raised or received by the Executive Government of the Commonwealth shall form one Consolidated Revenue Fund, to be appropriated for the purposes of the Commonwealth in the manner and subject to the charges and liabilities imposed by this Constitution.

82. The costs, charges, and expenses incident to the collection, management, and receipt of the Consolidated Revenue Fund shall form the first charge thereon ; and the revenue of the Commonwealth shall in the first instance be applied to the payment of the expenditure of the Commonwealth.

83. No money shall be drawn from the Treasury of the Commonwealth except under appropriation made by law.

But until the expiration of one month after the first meeting of the Parliament the Governor-General in Council may draw from the Treasury and expend such moneys as may be necessary for the maintenance of any department transferred to the Commonwealth and for the holding of the first elections for the Parliament.

84. When any department of the public service of a State becomes transferred to the Commonwealth, all officers of the department shall become subject to the control of the Executive Government of the Commonwealth.

Any such officer who is not retained in the service of the Commonwealth shall, unless he is appointed to some other office of equal emolument in the public service of the State, be entitled to receive from the State any pension, gratuity, or other compensation, payable under the law of the State on the abolition of his office.

Any such officer who is retained in the service of the Commonwealth shall preserve all his existing and accruing rights, and shall be entitled to retire from office at the time, and on the pension or retiring allowance, which would be permitted by the law of the State if his service with the Commonwealth were a continuation of his service with the State. Such pension or retiring allowance shall be paid to him by the Commonwealth; but the State shall pay to the Commonwealth a part thereof, to be calculated on the proportion which his term of service with the State bears to his whole term of service, and for the purpose of the calculation his salary shall be taken to be that paid to him by the State at the time of the transfer.

Any officer who is, at the establishment of the Commonwealth, in the public service of a State, and who is, by consent of the Governor of the State with the advice of the Executive Council thereof, transferred to the public service of the Commonwealth, shall have the same rights as if he had been an officer of a department transferred to the Commonwealth and were retained in the service of the Commonwealth.

85. When any department of the public service of a State is transferred to the Commonwealth—

- (i) All property of the State of any kind, used exclusively in connexion with the department, shall become vested in the Commonwealth; but, in the case of the departments controlling customs and excise and bounties, for such time only as the Governor-General in Council may declare to be necessary;
- (ii) The Commonwealth may acquire any property of the State, of any kind used, but not exclusively used in connexion with the department; the value thereof shall, if no agreement can be made, be ascertained in, as nearly as may be, the manner in which the value of land, or of an interest in land, taken by the State for public purposes is ascertained under the law of the State in force at the establishment of the Commonwealth;
- (iii) The Commonwealth shall compensate the State for the value of any property passing to the Commonwealth under this section; if no agreement can be made as to the mode of compensation, it shall be determined under laws to be made by the Parliament;
- (iv) The Commonwealth shall, at the date of the transfer, assume the current obligations of the State in respect of the department transferred.

86. On the establishment of the Commonwealth, the collection and control of duties of customs and of excise, and the control of the payment of bounties, shall pass to the Executive Government of the Commonwealth.

87. During a period of ten years after the establishment of the Commonwealth and thereafter until the Parliament otherwise provides, of the net revenue of the Commonwealth from duties of customs and of excise not more than one-fourth shall be applied annually by the Commonwealth towards its expenditure.

The balance shall, in accordance with this Constitution, be paid to the several States, or applied towards the payment of interest on debts of the several States taken over by the Commonwealth.

88. Uniform duties of customs shall be imposed within two years after the establishment of the Commonwealth.

89. Until the imposition of uniform duties of customs—

- (i) The Commonwealth shall credit to each State the revenues collected therein by the Commonwealth.
- (ii) The Commonwealth shall debit to each State—
 - (a) The expenditure therein of the Commonwealth incurred solely for the maintenance or continuance, as at the time of transfer, of any department transferred from the State to the Commonwealth;
 - (b) The proportion of the State, according to the number of its people, in the other expenditure of the Commonwealth.
- (iii) The Commonwealth shall pay to each State month by month the balance (if any) in favour of the State.

90. On the imposition of uniform duties of customs the power of the Parliament to impose duties of customs and of excise, and to grant bounties on the production or export of goods, shall become exclusive.

On the imposition of uniform duties of customs all laws of the several States imposing duties of customs or of excise, or offering bounties on the production or export of goods, shall cease to have effect, but any grant of or agreement for any such bounty lawfully made by or under the authority of the Government of any State shall be taken to be good if made before the thirtieth day of June, one thousand eight hundred and ninety-eight, and not otherwise.

91. Nothing in this Constitution prohibits a State from granting any aid to or bounty on mining for gold, silver, or other metals, nor from granting, with the consent of both Houses of the Parliament of the Commonwealth expressed by resolution, any aid to or bounty on the production or export of goods.

92. On the imposition of uniform duties of customs, trade, commerce, and intercourse among the States, whether by means of internal carriage or ocean navigation, shall be absolutely free.

But notwithstanding anything in this Constitution, goods imported before the imposition of uniform duties of customs into any State, or into any Colony which, whilst the goods remain therein, becomes a State, shall, on thence passing into another State within two years after the imposition of such duties, be liable to any duty chargeable on the importation of such goods into the Commonwealth, less any duty paid in respect of the goods on their importation.

93. During the first five years after the imposition of uniform duties of customs, and thereafter until the Parliament otherwise provides—

(i) The duties of customs chargeable on goods imported into a State and afterwards passing into another State for consumption, and the duties of excise paid on goods produced or manufactured in a State and afterwards passing into another State for consumption, shall be taken to have been collected not in the former but in the latter State :

(ii) Subject to the last sub-section, the Commonwealth shall credit revenue, debit expenditure, and pay balances to the several States as prescribed for the period preceding the imposition of uniform duties of customs.

94. After five years from the imposition of uniform duties of customs, the Parliament may provide, on such basis as it deems fair, for the monthly payment to the several States of all surplus revenue of the Commonwealth.

95. Notwithstanding anything in this Constitution, the Parliament of the State of Western Australia, if that State be an Original State, may, during the first five years after the imposition of uniform duties of customs, impose duties of customs on goods passing into that State and not originally imported from beyond the limits of the Commonwealth : and such duties shall be collected by the Commonwealth.

But any duty so imposed on any goods shall not exceed during the first of such years the duty chargeable on the goods under the law of Western Australia in force at the imposition of uniform duties, and shall not exceed during the second, third, fourth, and fifth of such years respectively, four-fifths, three-fifths, two-fifths, and one-fifth of such latter duty, and all duties imposed under this section shall cease at the expiration of the fifth year after the imposition of uniform duties.

If at any time during the five years the duty on any goods under this section is higher than the duty imposed by the Commonwealth on the importation of the like goods, then such higher duty shall be collected on the goods when imported into Western Australia from beyond the limits of the Commonwealth.

96. During a period of ten years after the establishment of the Commonwealth and thereafter until the Parliament otherwise provides, the Parliament may grant financial assistance to any State on such terms and conditions as the Parliament thinks fit.

97. Until the Parliament otherwise provides, the laws in force in any Colony which has become or becomes a State with respect to the receipt of revenue and the expenditure of money on account of the Government of the Colony, and the review and audit of such

receipt and expenditure, shall apply to the receipt of revenue and the expenditure of money on account of the Commonwealth in the State in the same manner as if the Commonwealth, or the Government or an officer of the Commonwealth, were mentioned whenever the Colony, or the Government or an officer of the Colony, is mentioned.

98. The power of the Parliament to make laws with respect to trade and commerce extends to navigation and shipping, and to railways the property of any State.

99. The Commonwealth shall not, by any law or regulation of trade, commerce, or revenue, give preference to one State or any part thereof over another State or any part thereof.

100. The Commonwealth shall not, by any law or regulation of trade or commerce, abridge the right of a State or of the residents therein to the reasonable use of the waters of rivers for conservation or irrigation.

101. There shall be an Inter-State Commission, with such powers of adjudication and administration as the Parliament deems necessary for the execution and maintenance, within the Commonwealth, of the provisions of this Constitution relating to trade and commerce, and of all laws made thereunder.

102. The Parliament may by any law with respect to trade or commerce forbid, as to railways, any preference or discrimination by any State, or by any authority constituted under a State, if such preference or discrimination is undue and unreasonable, or unjust to any State; due regard being had to the financial responsibilities incurred by any State in connexion with the construction and maintenance of its railways. But no preference or discrimination shall, within the meaning of this section, be taken to be undue and unreasonable, or unjust to any State, unless so adjudged by the Inter-State Commission.

103. The members of the Inter-State Commission—

(i) Shall be appointed by the Governor-General in Council :

(ii) Shall hold office for seven years, but may be removed within that time by the Governor-General in Council, on an address from both Houses of the Parliament in the same session praying for such removal on the ground of proved misbehaviour or incapacity :

(iii) Shall receive such remuneration as the Parliament may fix ; but such remuneration shall not be diminished during their continuance in office.

104. Nothing in this Constitution shall render unlawful any rate for the carriage of goods upon a railway, the property of a State, if the rate is deemed by the Inter-State Commission to be necessary for the development of the territory of the State, and if the rate applies equally to goods within the State and to goods passing into the State from other States.

105. The Parliament may take over from the States their public debts [as existing at the establishment of the Commonwealth],* or a proportion thereof according to the respective numbers of their people as shown by the latest statistics of the Commonwealth, and may convert, renew, or consolidate such debts, or any part thereof ; and the State shall indemnify the Commonwealth in respect of the debts taken over, and thereafter the interest payable in respect of the debts shall be deducted and retained from the portions of the surplus revenue of the Commonwealth payable to the several States, or if such surplus is insufficient, or if there is no surplus, then the deficiency or the whole amount shall be paid by the several States.

105A.† (i) *The Commonwealth may make agreements with the States with respect to the public debts of the States, including—*

(a) *the taking over of such debts by the Commonwealth ;*

(b) *the management of such debts ;*

(c) *the payment of interest and the provision and management of sinking funds in respect of such debts ;*

* Under Section 2 of the Constitution Alteration (State Debts) 1909, the words in square brackets are omitted.

† Under Section 2 of the Constitution Alteration (State Debts) 1928, the Constitution was amended by the insertion of this section.

- (d) *the consolidation, renewal, conversion, and redemption of such debts ;*
- (e) *the indemnification of the Commonwealth by the States in respect of debts taken over by the Commonwealth ; and*
- (f) *the borrowing of money by the States or by the Commonwealth, or by the Commonwealth for the States.*
- (ii) *The Parliament may make laws for validating any such agreement made before the commencement of this section.*
- (iii) *The Parliament may make laws for the carrying out by the parties thereto of any such agreement.*
- (iv) *Any such agreement may be varied or rescinded by the parties thereto.*
- (v) *Every such agreement and any such variation thereof shall be binding upon the Commonwealth and the States parties thereto notwithstanding anything contained in this Constitution or the Constitution of the several States or in any law of the Parliament of the Commonwealth or of any State.*
- (vi) *The powers conferred by this section shall not be construed as being limited in any way by the provisions of section one hundred and five of this Constitution.*

CHAPTER V.—THE STATES.

106. The Constitution of each State of the Commonwealth shall, subject to this Constitution, continue as at the establishment of the Commonwealth, or as at the admission or establishment of the State, as the case may be, until altered in accordance with the Constitution of the State.

107. Every power of the Parliament of a Colony which has become or becomes a State, shall, unless it is by this Constitution exclusively vested in the Parliament of the Commonwealth or withdrawn from the Parliament of the State, continue as at the establishment of the Commonwealth, or as at the admission or establishment of the State, as the case may be.

108. Every law in force in a Colony which has become or becomes a State, and relating to any matter within the powers of the Parliament of the Commonwealth, shall, subject to this Constitution, continue in force in the State ; and, until provision is made in that behalf by the Parliament of the Commonwealth, the Parliament of the State shall have such powers of alteration and of repeal in respect of any such law as the Parliament of the Colony had until the Colony became a State.

109. When a law of a State is inconsistent with a law of the Commonwealth, the latter shall prevail, and the former shall, to the extent of the inconsistency, be invalid.

110. The provisions of this Constitution relating to the Governor of a State extend and apply to the Governor for the time being of the State, or other chief executive officer or administrator of the government of the State.

111. The Parliament of a State may surrender any part of the State to the Commonwealth ; and upon such surrender, and the acceptance thereof by the Commonwealth, such part of the State shall become subject to the exclusive jurisdiction of the Commonwealth.

112. After uniform duties of customs have been imposed, a State may levy on imports or exports, or on goods passing into or out of the State, such charges as may be necessary for executing the inspection laws of the State ; but the net produce of all charges so levied shall be for the use of the Commonwealth ; and any such inspection laws may be annulled by the Parliament of the Commonwealth.

113. All fermented, distilled, or other intoxicating liquids passing into any State or remaining therein for use, consumption, sale, or storage, shall be subject to the laws of the State as if such liquids had been produced in the State.

114. A State shall not, without the consent of the Parliament of the Commonwealth, raise or maintain any naval or military force, or impose any tax on property of any kind belonging to the Commonwealth, nor shall the Commonwealth impose any tax on property of any kind belonging to a State.

115. A State shall not coin money, nor make anything but gold and silver coin a legal tender in payment of debts.

116. The Commonwealth shall not make any law for establishing any religion, or for imposing any religious observance, or for prohibiting the free exercise of any religion, and no religious test shall be required as a qualification for any office or public trust under the Commonwealth.

117. A subject of the Queen, resident in any State, shall not be subject in any other State to any disability or discrimination which would not be equally applicable to him if he were a subject of the Queen resident in such other State.

118. Full faith and credit shall be given, throughout the Commonwealth, to the laws, the public Acts and records, and the judicial proceedings of every State.

119. The Commonwealth shall protect every State against invasion and, on the application of the Executive Government of the State, against domestic violence.

120. Every State shall make provision for the detention in its prisons of persons accused or convicted of offences against the laws of the Commonwealth, and for the punishment of persons convicted of such offences, and the Parliament of the Commonwealth may make laws to give effect to this provision.

CHAPTER VI.—NEW STATES.

121. The Parliament may admit to the Commonwealth or establish new States, and may upon such admission or establishment make or impose such terms and conditions, including the extent of representation in either House of the Parliament, as it thinks fit.

122. The Parliament may make laws for the government of any territory surrendered by any State to and accepted by the Commonwealth, or of any territory placed by the Queen under the authority of and accepted by the Commonwealth, or otherwise acquired by the Commonwealth, and may allow the representation of such territory in either House of the Parliament to the extent and on the terms which it thinks fit.

123. The Parliament of the Commonwealth may, with the consent of the Parliament of a State, and the approval of the majority of the electors of the State voting upon the question, increase, diminish, or otherwise alter the limits of the State, upon such terms and conditions as may be agreed on, and may, with the like consent, make provision respecting the effect and operation of any increase or diminution or alteration of territory in relation to any State affected.

124. A new State may be formed by separation of territory from a State, but only with the consent of the Parliament thereof, and a new State may be formed by the union of two or more States or parts of States, but only with the consent of the Parliaments of the States affected.

CHAPTER VII.—MISCELLANEOUS.

125. The seat of Government of the Commonwealth shall be determined by the Parliament, and shall be within territory which shall have been granted to or acquired by the Commonwealth, and shall be vested in and belong to the Commonwealth, and shall be in the State of New South Wales, and be distant not less than one hundred miles from Sydney.

Such territory shall contain an area of not less than one hundred square miles, and such portion thereof as shall consist of Crown lands shall be granted to the Commonwealth without any payment therefor.

The Parliament shall sit at Melbourne until it meet at the seat of Government.

126. The Queen may authorize the Governor-General to appoint any person, or any persons jointly or severally, to be his deputy or deputies within any part of the Commonwealth, and in that capacity to exercise during the pleasure of the Governor-General such powers and functions of the Governor-General as he thinks fit to assign to such deputy or deputies, subject to any limitations expressed or directions given by the Queen; but the appointment of such deputy or deputies shall not affect the exercise by the Governor-General himself of any power or function.

127. In reckoning the numbers of the people of the Commonwealth, or of a State or other part of the Commonwealth, aboriginal natives shall not be counted.

CHAPTER VIII.—ALTERATION OF THE CONSTITUTION.

128. This Constitution shall not be altered except in the following manner :—

The proposed law for the alteration thereof must be passed by an absolute majority of each House of the Parliament, and not less than two nor more than six months after its passage through both Houses the proposed law shall be submitted in each State to the electors qualified to vote for the election of members of the House of Representatives.

But if either House passes any such proposed law by an absolute majority, and the other House rejects or fails to pass it or passes it with any amendment to which the first-mentioned House will not agree, and if after an interval of three months the first-mentioned House in the same or the next session again passes the proposed law by an absolute majority with or without any amendment which has been made or agreed to by the other House, and such other House rejects or fails to pass it or passes it with any amendment to which the first-mentioned House will not agree, the Governor-General may submit the proposed law as last proposed by the first-mentioned House, and either with or without any amendments subsequently agreed to by both Houses, to the electors in each State qualified to vote for the election of the House of Representatives.

When a proposed law is submitted to the electors the vote shall be taken in such manner as the Parliament prescribes. But until the qualification of electors of members of the House of Representatives becomes uniform throughout the Commonwealth, only one-half the electors voting for and against the proposed law shall be counted in any State in which adult suffrage prevails.

And if in a majority of the States a majority of the electors voting approve the proposed law, and if a majority of all the electors voting also approve the proposed law, it shall be presented to the Governor-General for the Queen's assent.

No alteration diminishing the proportionate representation of any State in either House of the Parliament, or the minimum number of representatives of a State in the House of Representatives, or increasing, diminishing, or otherwise altering the limits of the State, or in any manner affecting the provisions of the Constitution in relation thereto, shall become law unless the majority of the electors voting in that State approve the proposed law.

SCHEDULE.

OATH.

I, *A.B.*, do swear that I will be faithful and bear true allegiance to Her Majesty Queen Victoria, Her heirs and successors according to law. So **HELP ME GOD!**

AFFIRMATION.

I, *A.B.*, do solemnly and sincerely affirm and declare that I will be faithful and bear true allegiance to Her Majesty Queen Victoria, Her heirs and successors according to law.

(NOTE.—*The name of the King or Queen of the United Kingdom of Great Britain and Ireland for the time being is to be substituted from time to time.*)

3. **The Royal Proclamation.**—The preceding Act received the Royal assent on the 9th July, 1900. This made it lawful to declare that the people of Australia should be united in a Federal Commonwealth. This proclamation, made on the 17th September, 1900, constituted the Commonwealth as from the 1st January, 1901 ; it reads as follows :—

BY THE QUEEN.

A PROCLAMATION.

(Signed) VICTORIA R.

WHEREAS by an Act of Parliament passed in the Sixty-third and Sixty-fourth Years of Our Reign, intituled "An Act to constitute the Commonwealth of *Australia*," it is enacted that it shall be lawful for the Queen, with the advice of the Privy Council, to declare by Proclamation, that, on and after a day therein appointed, not being later than One year after the passing of this Act, the people of *New South Wales*, *Victoria*, *South Australia*, *Queensland*, and *Tasmania*, and also, if Her Majesty is satisfied that the people of *Western Australia* have agreed thereto, of *Western Australia*, shall be united in a Federal Commonwealth under the name of the Commonwealth of Australia.

And whereas We are satisfied that the people of *Western Australia* have agreed thereto accordingly.

We therefore, by and with the advice of Our Privy Council, have thought fit to issue this Our Royal Proclamation, and We do hereby declare that on and after the First day of *January* One thousand nine hundred and one, the people of *New South Wales*, *Victoria*, *South Australia*, *Queensland*, *Tasmania*, and *Western Australia* shall be united in a Federal Commonwealth under the name of the Commonwealth of *Australia*.

Given at Our Court at *Balmoral* this Seventeenth day of *September*, in the Year of Our Lord One thousand nine hundred, and in the Sixty-fourth Year of Our Reign.

GOD SAVE THE QUEEN.

CHAPTER II.

PHYSIOGRAPHY.

§ 1. General Description of Australia.

1. *Geographical Position.*—(i) *General.* The Australian Commonwealth, which includes the island continent of Australia proper and the island of Tasmania, is situated in the Southern Hemisphere, and comprises in all an area of about 2,974,581 square miles, the mainland alone containing about 2,948,366 square miles. Bounded on the west and east by the Indian and Pacific Oceans respectively, it lies between longitudes $113^{\circ} 9' \text{ E.}$ and $153^{\circ} 39' \text{ E.}$, while its northern and southern limits are the parallels of latitude $10^{\circ} 41' \text{ S.}$ and $39^{\circ} 8' \text{ S.}$, or, including Tasmania, $43^{\circ} 39' \text{ S.}$ On its north are the Timor and Arafura Seas and Torres Strait—on its south the Southern Ocean and Bass Strait. The extreme points are “Steep Point” on the west, “Cape Byron” on the east, “Cape York” on the north, “Wilson’s Promontory” on the south, or, if Tasmania be included, “South-East Cape.”

(ii) *Tropical and Temperate Regions.* Of the total area of Australia nearly 40 per cent. lies within the tropics. Assuming, as is usual, that the latitude of the Tropic of Capricorn is $23^{\circ} 30' \text{ S.}$ (its mean value for 1944 was $23^{\circ} 26' 47.65''$), the areas within the tropical and temperate zones are approximately as follows:—

AUSTRALIA : AREAS OF TROPICAL AND TEMPERATE REGIONS.

(AREAS OF STATES AND TERRITORY PARTIALLY WITHIN TROPICS.)

Area.		Queensland.	Western Australia.	Northern Territory.	Total.
Within Tropical Zone	sq. miles	359,000	364,000	426,320	1,149,320
.. Temperate Zone	.. ..	311,500	611,920	97,300	1,020,720
Ratio of Tropical part to whole State ..		0.535	0.373	0.814	0.530
.. Temperate part to whole State		0.465	0.627	0.186	0.470

Thus the tropical part is roughly about one-half (0.530) of the three territories mentioned above, or about five-thirteenths of the whole of Australia (0.386).

2. *Area of Australia compared with Areas of other Countries.*—The area of Australia is almost as great as that of the United States of America, four-fifths of that of Canada, more than one-fifth of the area of the British Empire, nearly three-fourths of the whole area of Europe, and about 25 times as large

as Great Britain and Ireland. This great area, coupled with a limited population, renders the solution of the problem of Australian development a particularly difficult one. The areas of Australia and of certain other countries are given in the following table :—

AREA OF AUSTRALIA AND OF OTHER COUNTRIES, *Circa 1939.*

Country.	Area.	Country.	Area.
Continental Divisions—	Sq. miles.	AFRICA—continued.	Sq. miles.
Europe	4,409,000	Italian East Africa ..	666,000
Asia	16,216,000	Angola	488,000
Africa	11,707,000	Union of South Africa ..	473,000
North and Central America		Egypt	386,000
and West Indies ..	8,665,000	Tanganyika Territory ..	374,000
South America	6,937,000	Nigeria and Protectorate..	373,000
Oceania, etc.	3,301,000	South-West Africa ..	322,000
Total, excluding Arctic		Mozambique	298,000
and Antarctic Conts.	51,235,000	Northern Rhodesia ..	290,000
		Bechuanaland Protectorate	275,000
		Madagascar	229,000
Europe—		Kenya Colony and Protec-	
U.S.S.R. (Russia) ..	2,316,000	torate	225,000
Germany (a)	225,000	Other	1,130,000
France	213,000	Total	11,707,000
Spain (inc. possessions) ..	195,000		
Sweden	173,000	North and Central America—	
Poland	150,000	Canada	3,695,000
Finland	148,000	United States of America..	3,027,000
Italy (b)	131,000	Mexico	760,000
Norway	125,000	Alaska	586,000
Rumania	114,000	Newfoundland and Labra-	
Yugoslavia	96,000	dor	163,000
United Kingdom ..	94,000	Honduras	59,000
Other	429,000	Nicaragua	49,000
Total	4,409,000	Other	326,000
		Total	8,665,000
Asia—		South America—	
U.S.S.R. (Russia) ..	5,868,000	Brazil	3,286,000
China and Dependencies..	4,287,000	Argentine Republic ..	1,078,000
British India	865,000	Bolivia	421,000
Arabia	1,004,000	Peru	482,000
Feudatory Indian States..	716,000	Colombia (exc. of Panama)	440,000
Iran	635,000	Venezuela	352,000
Netherlands Indies (c) ..	735,000	Chile	287,000
Turkey	287,000	Paraguay	153,000
French Indo-China ..	286,000	Ecuador	176,000
Japan and Dependencies..	262,000	Other	262,000
Afghanistan	251,000	Total	6,937,000
Burma	234,000		
Thailand	200,000	Oceania, etc.—	
Other	586,000	Commonwealth of Australia	2,975,000
Total	16,216,000	New Zealand and Depen-	
		dencies	104,000
Africa—		Territory of New Guinea..	91,000
French West Africa ..	1,816,000	Papua	90,000
Anglo-Egyptian Sudan ..	969,000	Other	41,000
French Equatorial Africa..	960,000	Total	3,301,000
Belgian Congo	902,000	British Empire	13,354,000
Algeria	851,000		
Libya	680,000		

(a) Includes Austria (32,000 sq. miles) and Sudetan Territory (11,000 sq. miles).
Albania (11,000 sq. miles).

(c) Includes Dutch New Guinea.

(b) Includes

The countries and areas given in the table are those obtaining before the 1939 War and have been extracted from the *Statistical Year Book of the League of Nations*.

3. Areas of Political Subdivisions.—As already stated, Australia consists of six States and the Northern and Australian Capital Territories. The areas of these, and their proportions of the total of Australia, are shown in the following table :—

AUSTRALIA : AREA OF STATES AND TERRITORIES.

State or Territory.	Area.	Percentage on Total.
	Sq. miles.	%
New South Wales	309,433	10.40
Victoria	87,884	2.96
Queensland	670,500	22.54
South Australia	380,070	12.78
Western Australia	975,920	32.81
Tasmania	26,215	0.88
Northern Territory	523,620	17.60
Australian Capital Territory ..	939	0.03
Total	2,974,581	100.00

4. Coastal Configuration.—(i) *General*. There are no striking features in the configuration of the coast; the most remarkable indentations are the Gulf of Carpentaria on the north and the Great Australian Bight on the south. The Cape York Peninsula on the extreme north is the only other remarkable feature in the outline. In Official Year Book No. 1, an enumeration is given of the features of the coast-line of Australia (see pp. 60–68).

(ii) *Coast-line*. The lengths of coast-line, excluding minor indentations, of each State and of the whole continent, and the area per mile of coast-line, are shown in the following table :—

AUSTRALIA : COAST-LINE AND AREA PER MILE THEREOF.

State.	Coast-line.	Area per Mile of Coast-line.	State.	Coast-line.	Area per Mile of Coast-line.
	Miles.	Sq. miles.		Miles.	Sq. miles.
New South Wales(a)	700	443	South Australia ..	1,540	247
Victoria	680	129	Western Australia	4,350	224
Queensland	3,000	223	Continent (b) ..	11,310	261
Northern Territory	1,040	503	Tasmania	900	20

(a) Includes Australian Capital Territory.

(b) Area 2,948,366 square miles.

For the entire Commonwealth of Australia this gives a coast-line of 12,210 miles and an average of 244 square miles for one mile of coast-line. According to Strelbitski, Europe has only 75 square miles of area to each mile of coast-line, and, according to recent figures, England and Wales have only one-third of this, namely, 25 square miles.

(iii) *Historical Significance of Coastal Names*. It is interesting to trace the voyages of some of the early navigators by the names bestowed by them on various coastal features—thus Dutch names are found on various points of the Western Australian

coast, in Nuyts' Archipelago, in the Northern Territory, and in the Gulf of Carpentaria; Captain Cook can be followed along the coasts of New South Wales and Queensland; Flinders' track is easily recognized from Sydney southwards, as far as Cape Catastrophe, by the numerous Lincolnshire names bestowed by him; and the French navigators of the end of the eighteenth and the beginning of the nineteenth century have left their names all along the Western Australian, South Australian and Tasmanian coasts.

5. **Geographical Features of Australia.**—In each of the earlier issues of the Official Year Book fairly complete information has been given concerning some special geographical element. The nature of this information and its position in the various issues can be readily ascertained on reference to the special index following the index to maps and graphs at the end of this issue.

6. **Fauna, Flora, Geology and Seismology of Australia.**—Special articles dealing with these features have appeared in previous issues of the Official Year Book, but limits of space naturally preclude their repetition in each volume. As pointed out in par. 5, however, the nature and position of these articles can be readily ascertained from the special index.

§ 2. Climate and Meteorology of Australia.*

1. **Introductory.**—In Official Year Book No. 3, pp. 79 and 80, some account is given of the history of Australian meteorology, including a reference to the development of magnetic observations. In Official Year Book No. 4, pp. 84 and 87, will be found a short sketch of the creation and organization of the Commonwealth Bureau of Meteorology, and a résumé of the subjects dealt with at the Meteorological Conference in 1907.

2. **Meteorological Publications.**—Reference to publications issued by the Central Meteorological Bureau appears in Official Year Book No. 22, pp. 40 and 41, and No. 34, p. 11. The following publications have since been issued:—Bulletin No. 28, "Duststorms in Australia"; Bulletin No. 29, "Report on the Divergence Theory of the Formation of Cyclones"; Bulletin No. 30, "Synoptic Analysis over South-West Pacific Area"; Bulletin No. 31, "Coastal Fogs in Australia"; and "Set of Typical Summer and Winter Weather Charts (for use in Schools)".

3. **Equipment.**—The determination of the climatological data has been made by records of the following instruments:—

- (i) *Rainfall.* Rainfall has been measured by a cylindrical gauge generally 8 inches in diameter.
- (ii) *Temperature.* Extreme daily temperatures have been recorded by means of self-registering maximum and minimum thermometers which are read and set daily.
- (iii) *Humidity.* Humidities have been determined by the aid of tables from readings of dry and wet bulb thermometers.
- (iv) *Atmospheric Pressure.* Pressures have been measured by mercurial barometers of the Kew (or Fortin) pattern.
- (v) *Evaporation.* The standard evaporimeter in use consists of a cylindrical galvanized iron tank 3 feet in diameter and 3 feet deep, with a water jacket. Concrete tanks of similar form and dimensions are also used.
- (vi) *Wind.* Data concerning wind have been obtained either by "Robinson" cup anemometer, "Dines" pressure tube anemometer or by "Machin" cup anemometer.

4. **General Description of Australia.**—A considerable portion (0.530) of three divisions of Australia is north of the tropic of Capricorn—that is to say, within Queensland, Western Australia and the Northern Territory, no less than 1,149,320 square miles

* Prepared from data supplied by the Director, Commonwealth Meteorological Bureau.

belong to the tropical zone and 1,020,720 to the temperate zone. The whole area of Australia within the temperate zone, however, is 1,825,261 square miles; thus the tropical part is about 0.386, or about five-thirteenthths of the whole, or the "temperate" region is half as large again as the "tropical" (more accurately 1.588). By reason of its insular geographical position and the absence of striking physical features whether in marine gulfs or in important mountains, Australia is, on the whole, less subject to extremes of weather than are regions of similar area in other parts of the globe, and latitude for latitude Australia is, on the whole, more temperate.

The average elevation of the surface of the land is low, probably close to 900 feet above the sea. The altitudes range up to a little over 7,300 feet, hence its climate embraces a great many features, from the characteristically tropical to what is essentially alpine, a fact indicated in some measure by the name Australian Alps given to the southern portion of the Great Dividing Range.

On the coast, the rainfall is often abundant and the atmosphere moist, but in some portions of the interior is very limited, and the atmosphere dry. The distribution of forest, therefore, with its climatic influence, is very uneven. In the interior, in places, there are fine belts of trees, but there are large areas also which are treeless, and here the air is hot and parching in summer. Again, on the coast, even so far south as latitude 35°, the vegetation is tropical in its luxuriance, and to some extent also in character. Climatologically, therefore, Australia may be said to present a great variety of features.

5. *Meteorological Divisions.*—(i) *General.* Reference to the divisions adopted by the Commonwealth Meteorologist will be found in Official Year Book No. 22, p. 41.

(ii) *Special Climatological Stations.* The latitudes, longitudes and altitudes of special stations, the climatological features of which are graphically represented hereinafter, are as follows :—

SPECIAL CLIMATOLOGICAL STATIONS : AUSTRALIA.

Locality.	Height above Sea Level.	Latitude. S.	Longitude. E.	Locality.	Height above Sea Level.	Latitude. S.	Longitude. E.
	Feet.	deg. min.	deg. min.		Feet.	deg. min.	deg. min.
Perth ..	197	31 57	115 51	Canberra ..	1,906	35 18	149 06
Adelaide ..	140	34 56	138 35	Darwin ..	97	12 28	130 51
Brisbane ..	134	27 28	153 2	Alice Springs	1,901	23 38	133 37
Sydney ..	138	33 52	151 12	Dubbo ..	870	32 15	148 37
Melbourne ..	114	37 49	144 58	Laverton, W.A.	1,506	28 40	122 23
Hobart ..	177	42 53	147 20	Coolgardie ..	1,389	30 57	121 10

6. *Temperatures.*—(i) *Comparisons with other Countries.* In respect of Australian temperatures generally, it may be pointed out that the mean annual isotherm for 70° Fahrenheit extends in South America and South Africa as far south as latitude 33°, while in Australia it reaches only as far south as latitude 30°, thus showing that, on the whole, Australia has, latitude for latitude, a more temperate climate than other places in the Southern Hemisphere.

The comparison is even more favourable when the Northern Hemisphere is included, for in the United States of America the 70° isotherm extends in several of the western States as far north as latitude 41°. In Europe, the same isotherm reaches almost to the southern shores of Spain, passing afterwards, however, along the northern shores of Africa till it reaches the Red Sea, when it bends northward along the eastern shore of the Mediterranean till it reaches Syria. In Asia, nearly the whole of the land area south of latitude 40° N. has a higher temperature than 70°.

The extreme range of temperature is less than 100° over practically the whole of Australia, that figure being only slightly exceeded at a very few places; it is mostly 70° to 90° over inland areas, and somewhat less on the coast. In parts of Asia and North America, the extreme range exceeds 130° and 150° in some localities.

Along the northern shores of Australia the temperatures are very equable. At Darwin, for example, the difference in the means for the hottest and coldest months is only 8.4° , and the extreme readings for the year, or the highest maximum on record and the lowest minimum, show a difference of under 50° .

(ii) *Hottest and Coldest Parts.* A comparison of the temperatures recorded at coast and inland stations shows that, in Australia, as in other continents, the range increases with increasing distance from the coast.

In the interior of Australia, and during exceptionally dry summers, the temperature occasionally reaches or exceeds 120° in the shade, and, considering Australia as a whole, frosts may occur within a few miles of the coastline over the entire continent except in the Northern Territory and in a considerable area of Northern Queensland. The hottest area of the continent is situated in the northern part of Western Australia about the Marble Bar and Nullagine gold-fields, where the maximum shade temperature during the summer sometimes exceeds 100° continuously for days and weeks. The coldest part of Australia is the extreme south-east of New South Wales and extreme east of Victoria—the region of the Australian Alps. Here the temperature seldom, if ever, reaches 100° even in the hottest of seasons, while in winter, readings slightly below zero are occasionally recorded.

Tasmania as a whole enjoys a most moderate and equable range of temperature throughout the year, although occasionally hot winds may cause the temperature to rise to 100° in the eastern part of the State.

(iii) *Monthly Maximum and Minimum Temperatures.* The normal monthly maximum and minimum temperatures can be best shown by means of graphs, which exhibit the nature of the fluctuation of each for all available years. In the diagram herein for nine representative places in Australia, the upper heavy curves show the mean maximum, and the lower heavy curves the mean minimum temperatures based upon daily observations, while the length of the interval between these two heavy curves shows the average difference between the highest and the lowest temperatures of the twenty-four hours.

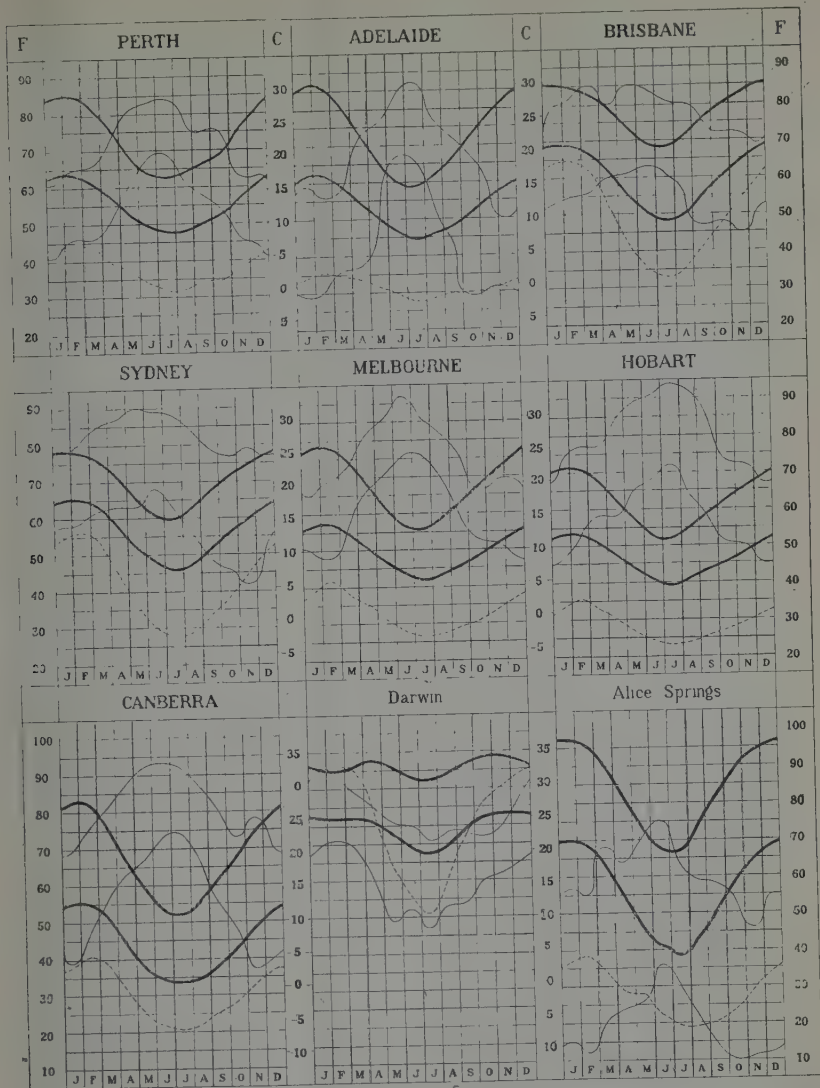
7. *Humidity.*—After temperature, humidity is the most important element of climate particularly as regards its effects on human comfort, rainfall supply, and conservation and related problems.

In this publication the humidity of the air has been graphically represented by its vapour pressure (i.e., the partial pressure of the water vapour measured in inches of mercury). The humidity has also been expressed by the relative humidity which is the quotient of the vapour pressure divided by the saturation vapour pressure and multiplied by one hundred. The mean 9 a.m. relative humidity, as well as its highest and lowest recorded mean values at 9 a.m., have been given in the tables of climatological data for the capital cities included herein. The mean monthly vapour pressure has also been added to these tables.

The annual curve of vapour pressure derived from the normal monthly values for this element is comparable with the maximum and minimum temperature curves, but the relative humidities consisting as they do of the extremes for each month do not show the normal annual fluctuation which would be approximately midway between the extremes.

The order of stations in descending values of 9 a.m. vapour pressure is Darwin, Brisbane, Sydney, Perth, Melbourne, Adelaide, Canberra, Hobart and Alice Springs, while the relative humidity diminishes in the order, Sydney, Canberra, Melbourne, Darwin, Hobart, Brisbane, Perth, Adelaide and Alice Springs.

AVERAGE ANNUAL FLUCTUATIONS OF NORMAL MAXIMUM AND MINIMUM TEMPERATURE AND HUMIDITY.



EXPLANATION.—The upper and lower heavy lines in each graph represent the mean maximum and mean minimum temperatures respectively. The Fahrenheit temperature scales are shown on the outer edge of the sheet under "F" and the centigrade scales in the two inner columns under "C."

The broken line shows the normal absolute humidity in the form of 9 a.m. vapour pressures for which the figures in the outer "F" columns represent hundredths of an inch of barometric pressure.

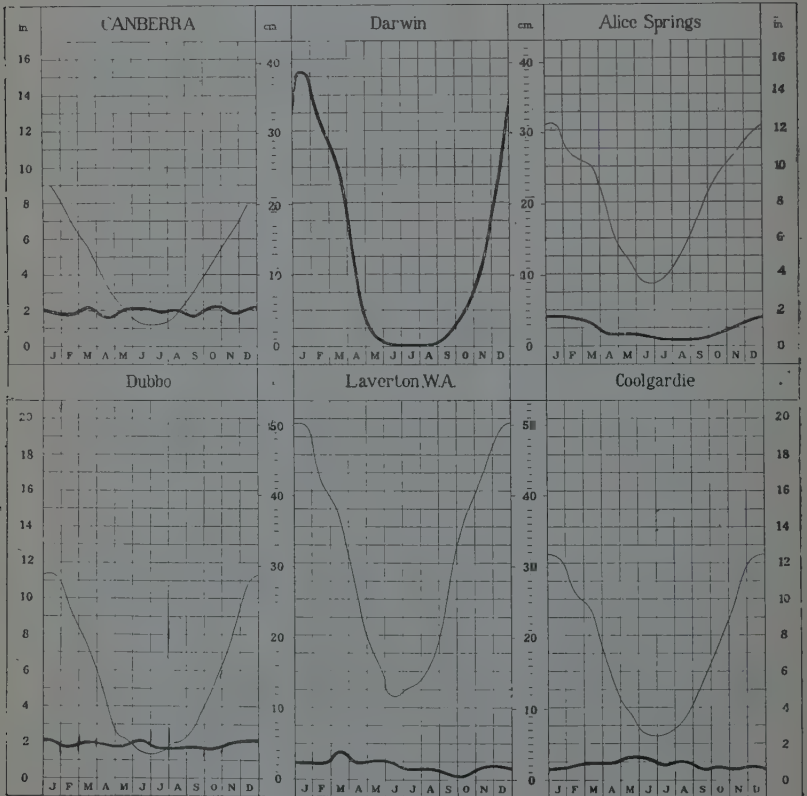
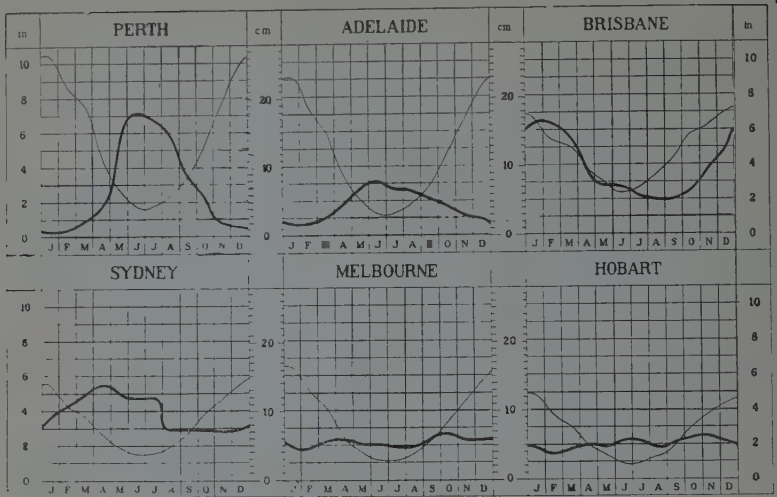
The upper and lower fine lines join the greatest and the least monthly means of relative humidity respectively, the figures under the outer columns "F" indicating percentage values.

The curves for temperature and vapour pressure joining the mean monthly values serve to show the annual fluctuation of these elements, but the relative humidity graphs joining the extreme values for each month do not indicate any normal annual variation.

Comparison of the maximum and minimum temperature curves affords a measure of the mean diurnal range of temperature. At Perth in the middle of January, for instance, there is normally a range of 21° from 63° F. to 84° F., but in July it is only 15° from 48° F. to 63° F.

The relative humidity curves illustrate the extreme range of the mean monthly humidity over a number of years.

MEAN MONTHLY RAINFALL AND EVAPORATION.



EXPLANATION.—On the preceding graphs thick lines denote rainfall, and thin lines evaporation, and show the fluctuation of the mean rate of fall or evaporation *per month* throughout the year. The results, plotted from the Climatological Tables herein, are shown in inches (see the outer columns), and the corresponding metric scale (centimetres) is shown in the two inner columns. The evaporation is not given for Darwin.

At Perth, Adelaide, Brisbane, Melbourne, Hobart, Canberra, Alice Springs, and Coolgardie the results have been obtained from jacketed tanks sunk in the ground. At Sydney and Dubbo sunken tanks without water jackets are used, whilst at Laverton (W.A.) the records are taken from a small portable jacket evaporation dish of 8 inches in diameter.

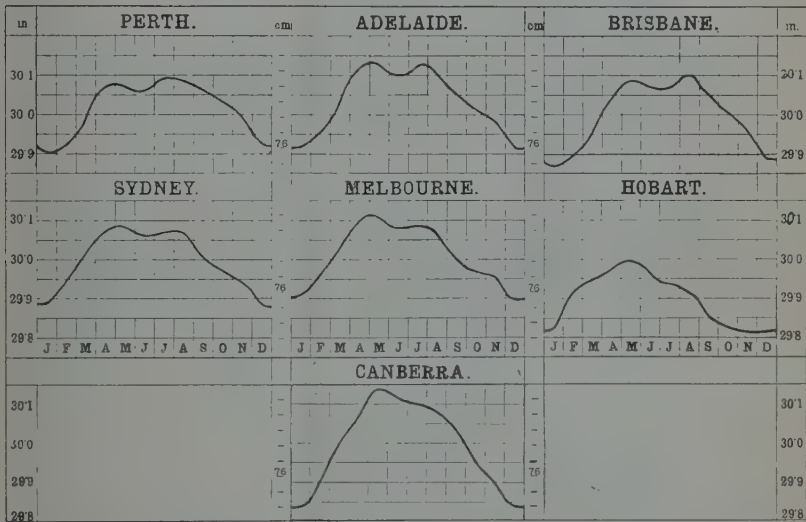
The distance for any date from the zero line to the curve represents the average number of inches reckoned as per month, of rainfall at that date. Thus, taking the curve for Adelaide in the middle of January, the rain falls on the average at the rate of about three-fourths of an inch per month or, say, at the rate of about 9 inches per year. In the middle of June it falls at the rate of a little over 3 inches per month, or, say, at the rate of about 37 inches per year. At Dubbo, the evaporation is at the rate of nearly 11½ inches per month about the middle of January, and only about 1½ inches at the middle of June.

The mean annual rainfall and evaporation at the places indicated are given in the appended table.

MEAN ANNUAL RAINFALL AND EVAPORATION.

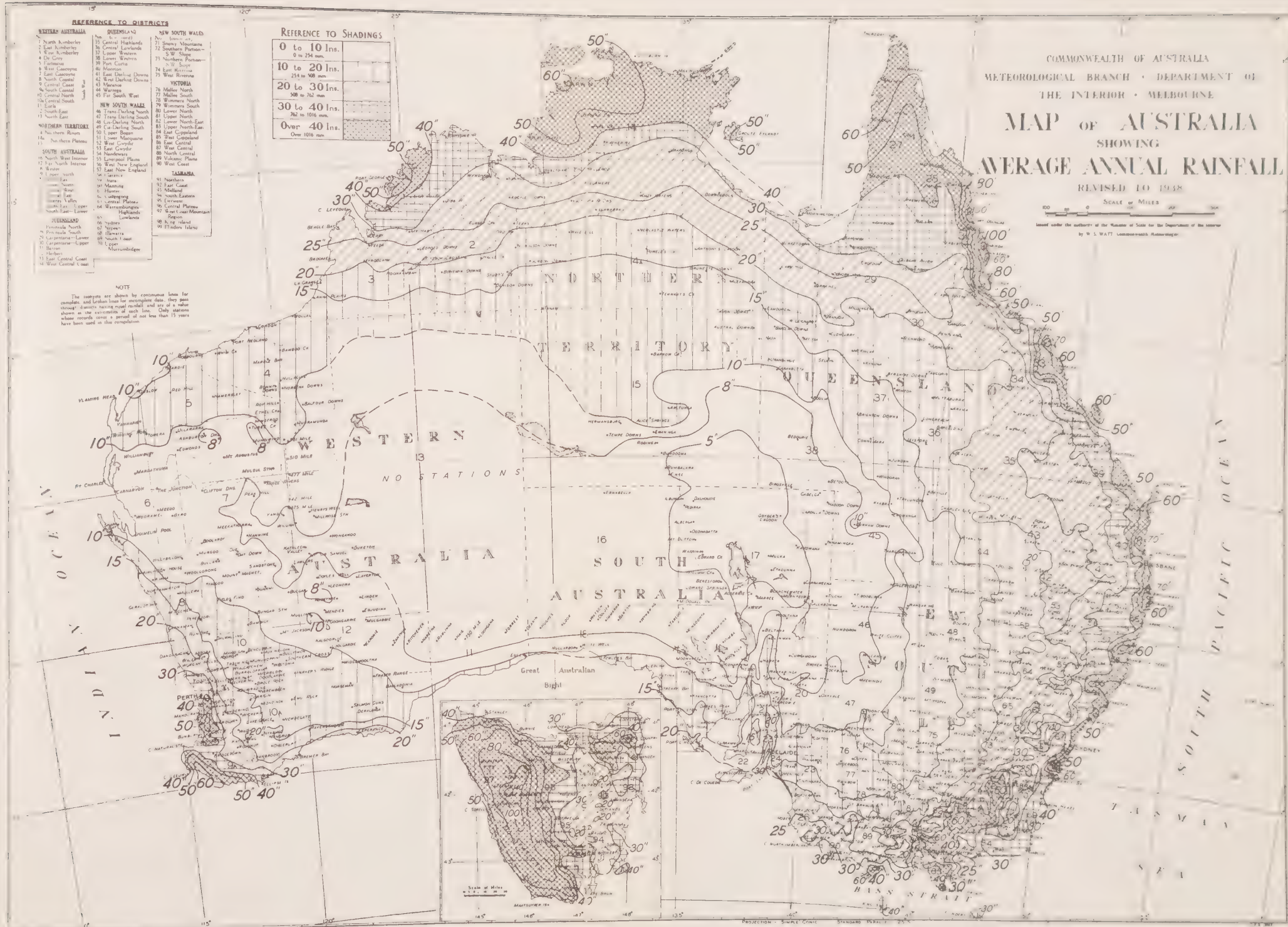
Place.	Rainfall.	Evapora- tion.	Place.	Rainfall.	Evapora- tion.
	In.	In.		In.	In.
Perth ..	34.75	65.91	Canberra ..	23.05	54.00
Adelaide ..	21.18	56.04	Darwin ..	60.60	—
Brisbane ..	44.71	56.36	Alice Springs ..	10.55	97.21
Sydney ..	46.59	40.17	Dubbo ..	21.83	66.37
Melbourne ..	25.69	39.15	Laverton, W.A.	9.12	145.17
Hobart ..	23.96	31.21	Coolgardie ..	10.24	84.42

MEAN BAROMETRIC PRESSURE.—CAPITAL CITIES.



EXPLANATION.—The lines representing the yearly fluctuations of barometric pressure at the State capital cities are means for long periods, and are plotted from the Climatological Tables herein. The pressures are shown in inches on about 2½ times the natural scale, and the corresponding pressures in centimetres are also shown in the two inner columns, in which each division represents one millimetre.

Taking the Brisbane graph for purposes of illustration, it will be seen that the mean pressure in the middle of January is about 29.87 inches, and there are maxima in the middle of May and August of about 30.09 inches.



COMMONWEALTH OF AUSTRALIA.
BUREAU OF METEOROLOGY MELBOURNE.
**MONTHLY DISTRIBUTION OF RAINFALL
OVER AUSTRALIA.**
REVISED TO END OF 1939.

ISSUED UNDER THE AUTHORITY OF THE MINISTER OF STATE FOR THE AIR BY

H. N. WARREN
DIRECTOR

SCALE OF MILES
0 50 100 200 300

EXPLANATION. THE GRAPHS SHOW THE AVERAGE RAINFALL IN EACH MONTH OF THE YEAR IN THE VARIOUS RAINFALL DISTRICTS. THE BOUNDARIES OF WHICH ARE SHOWN BY THE BROKEN LINES ON THE MAP. THE NUMBERS ON THE MAP REFER TO THE DISTRICTS. THE CORRESPONDING DISTRICT NAMES ARE GIVEN IN THE INSERT ON PAGE 37.

THE COLUMNS FOR THE SUCCESSIVE MONTHS JANUARY TO DECEMBER, RUN FROM LEFT TO RIGHT.

THE LENGTH OF A VERTICAL COLUMN REPRESENTS THE AVERAGE MONTHLY RAINFALL ACCORDING TO THE SCALE GIVEN BELOW.

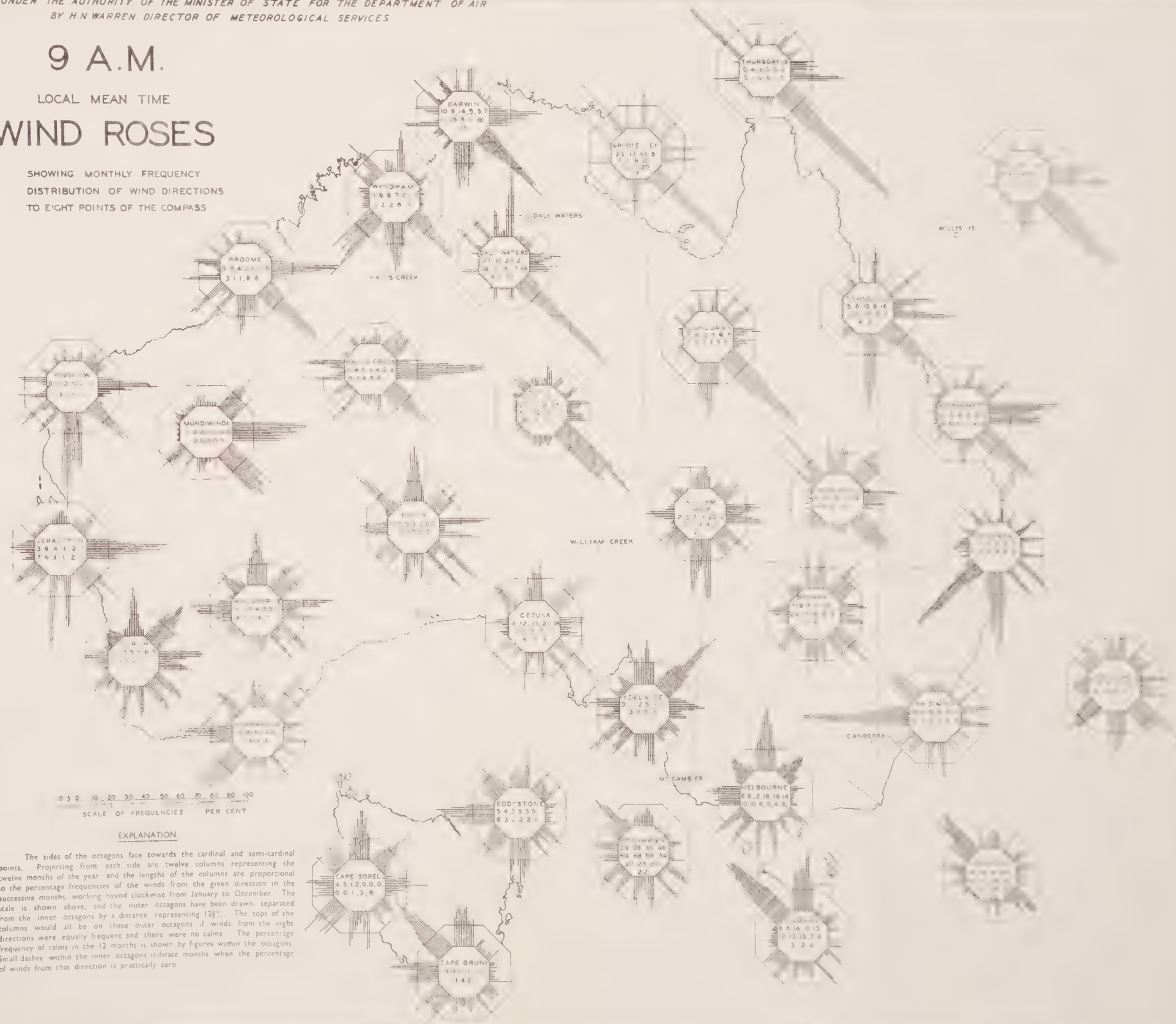


9 A.M.

LOCAL MEAN TIME

WIND ROSES

SHOWING MONTHLY FREQUENCY
DISTRIBUTION OF WIND DIRECTIONS
TO EIGHT POINTS OF THE COMPASS



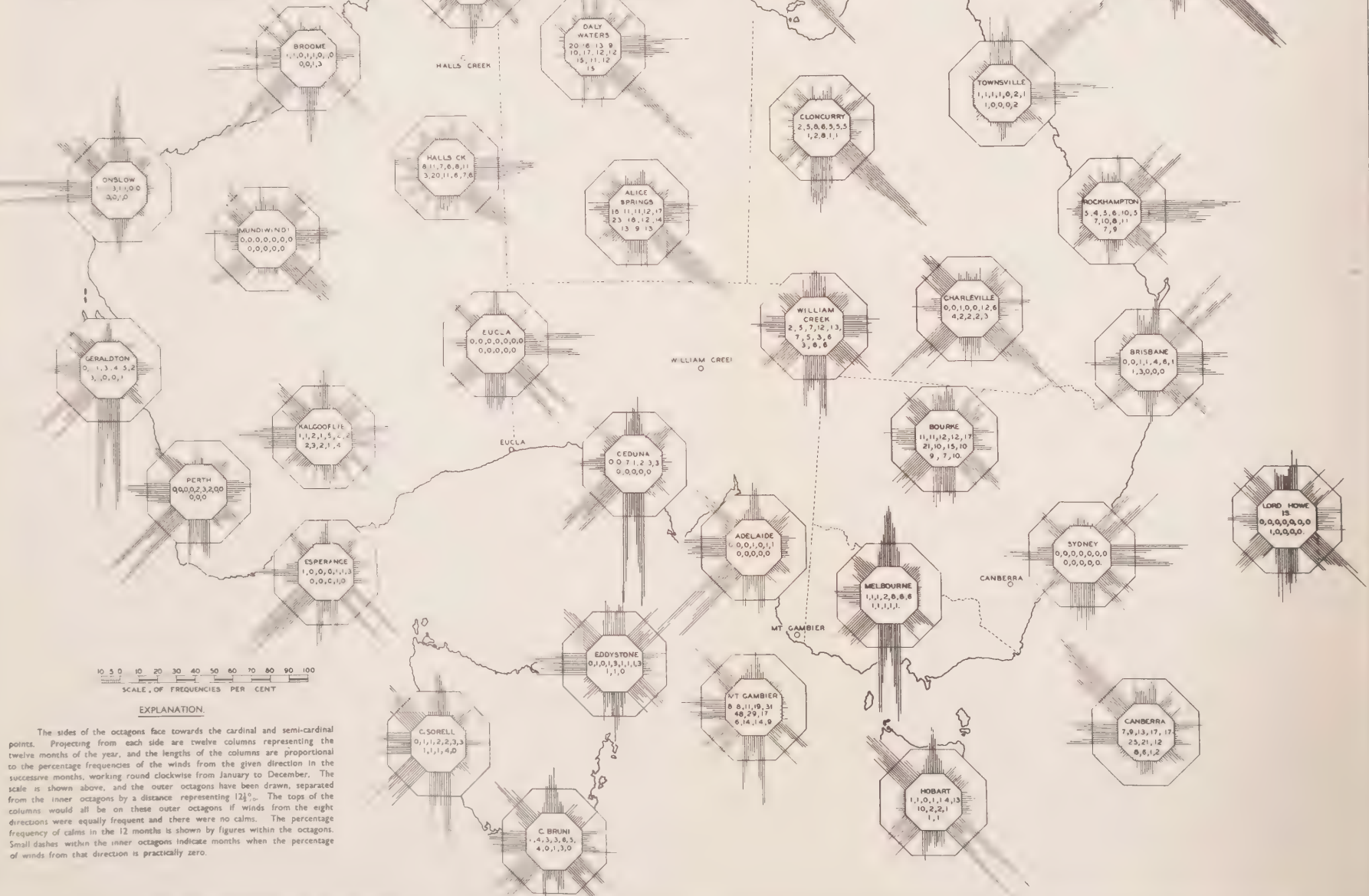
ISSUED UNDER THE AUTHORITY OF THE MINISTER OF STATE FOR THE DEPARTMENT OF AIR
BY H.N. WARREN DIRECTOR OF METEOROLOGICAL SERVICES

3 P.M.

LOCAL MEAN TIME

WIND ROSES

SHOWING MONTHLY FREQUENCY
DISTRIBUTION OF WIND DIRECTIONS
TO EIGHT POINTS OF THE COMPASS



8. *Evaporation.*—(i) *General.* The rate and quantity of evaporation in any territory is influenced by the prevailing temperature, and by atmospheric humidity, pressure, and movement. In Australia, the question is, perhaps, of more than ordinary importance, since in its drier regions water has often to be conserved in "tanks" and dams. The magnitude of the economic loss by evaporation will be appreciated from the tabular records herein, which show that the yearly amount varies from about 31 inches at Hobart to more than 100 inches in the central parts of Australia. Over an area of 70 per cent. of the continent, comprising most inland districts and extending to the coast in the North-West and Eucla divisions of Western Australia, during no month of the year does the rainfall exceed the evaporation. The central portion of the continent, comprising 46 per cent. of the total land mass, experiences evaporation more than twice as great as its rainfall; it is noteworthy that the vegetation in this region is characterised by acacia, semi-desert, shrub steppe and porcupine grass. Since the loss by evaporation depends largely on the exposed area, tanks and dams so designed that the surface shall be a minimum are advantageous. Further, the more protected from the direct rays of the sun and from winds by means of suitable tree planting, the less will be the loss by evaporation. These matters are naturally of more than ordinary concern in the drier districts of Australia.

(ii) *Monthly Evaporation Curves.* The diagrams herein showing the mean monthly evaporation in various parts of Australia disclose how characteristically different are the amounts for the several months in different localities.

9. *Rainfall.*—(i) *General.* The rainfall of any region is determined mainly by the direction and route of the prevailing winds, by the varying temperatures of the earth's surface over which they blow, and by its physiographical features.

Australia lies within the zones of the south-east trades and prevailing westerly winds. The southern limit of the south-east trade strikes the eastern shores at about 30° south latitude, and, with very few exceptions, the heaviest rains of the Australian continent are precipitated along the Pacific slopes to the north of that latitude, the varying quantities being more or less regulated by the differences in elevation of the shores and of the chain of mountains from the New South Wales northern border to Thursday Island, upon which the rain-laden winds blow. The converse effect is exemplified on the north-west coast of Western Australia, where the prevailing winds blowing from the interior of the continent instead of from the ocean, result in the lightest coastal rain in Australia.

The westerly winds, which skirt the southern shores, are responsible for the reliable, generally light to moderate rains enjoyed by the south-western portion of Western Australia, the agricultural areas of South Australia, a great part of Victoria, and the whole of Tasmania.

(ii) *Distribution of Rainfall.* The average annual rainfall map of Australia herein shows that the heaviest yearly falls occur on the north coast of Queensland (up to over 100 inches) and in Western Tasmania (up to 140 inches), while from 50 to over 60 inches are received on parts of the eastern seaboard from Jervis Bay (New South Wales) to the northern part of Cape York Peninsula, also around Darwin (Northern Territory), on the West Kimberley coast, near Cape Leeuwin (Western Australia), about the Australian Alps in eastern Victoria and New South Wales, and on the north-eastern highlands in Tasmania. A great part of the interior of the continent, stretching from the far west of New South Wales and the south-west of Queensland to the vicinity of Shark Bay in Western Australia, has a very low average rainfall of less than 10 inches a year. Between these two regions of heavy and very low rainfall are the extensive areas which experience useful to good rains, and in the southern and eastern parts of which are found the best country and most of the population and primary production.

* In Australia, artificial storage ponds or reservoirs are called "tanks."

(iii) *Factors Determining Occurrence, Intensity and Seasonal Distribution of Rainfall.* Reference has already been made to the frequent rains occurring in the north-eastern coastal districts of Queensland with the prevailing south-east trade winds and to similar rains in the west of Tasmania with the prevailing westerly winds. Other rains in Australia are associated mainly with tropical and southern depressions.

The former chiefly affect the northern, eastern, and to some extent the central parts of the continent and operate in an irregular manner during the warmer half of the year, but principally from December to March. They vary considerably in activity and scope from year to year, occasionally developing into severe storms off the east and north-west coasts. Tropical rainstorms sometimes cover an extensive area, half of the continent on occasions receiving moderate to very heavy falls during a period of a few days. Rain is also experienced, with some regularity, with thunderstorms in tropical areas, specially near the coast. All these tropical rains, however, favour mostly the northern and eastern parts of the area referred to; the other parts further inland receive lighter, less frequent and less reliable rainfall. With the exception of districts near the east coast, where some rain falls in all seasons, the tropical parts of the continent receive useful rains only on rare occasions from May to September.

The southern depressions are most active in the winter—June to August—and early spring months. The rains associated with them are fairly reliable and frequent over Southern Australia and Tasmania, and provide during that period the principal factor in the successful growing of wheat. These depressions also operate with varying activity during the remainder of the year, but the accompanying rains are usually lighter. The southern rains favour chiefly the south-west of Western Australia, the agricultural districts of South Australia, Victoria, Tasmania, and the southern parts of New South Wales. They sometimes extend into the drier regions of the interior, but only infrequently and with irregular rains.

The map showing mean monthly distribution of rainfall over Australia gives information on the amount and occurrence of rain in graphic form.

(iv) *Wettest and Driest Regions.* The wettest known part of Australia is on the north-east coast of Queensland, between Port Douglas and Cardwell, where Deeral on the north coast-line has an average annual rainfall of 175.00 inches and Tully on the Tully River 174.65 inches. In addition, three stations situated on, or adjacent to, the Johnstone and Russel Rivers have an average annual rainfall of between 143 and 175 inches. The maximum and minimum falls there are:—Deeral, 257.58 in 1939 and 109.74 inches in 1943, or a range of 147.84 inches; Tully, 234.37 in 1936 and 104.98 inches in 1943, or a range of 129.39 inches; Goondi, 241.53 in 1894 and 67.88 inches in 1915, or a range of 173.65 inches; Innisfail, 211.24 in 1894 and 69.87 inches in 1902, or a range of 141.37 inches; Harvey Creek, 254.77 in 1921 and 80.47 inches in 1902, or a range of 174.30 inches.

On four occasions more than 200 inches have been recorded at Goondi, the last of these being in 1910, when 204.82 inches were registered. The records at this station cover a period of 58 years.

In eighteen years of record Tully has exceeded 200 inches on seven occasions, whilst in a record of 28 complete years Harvey's Creek has four times exceeded this figure, and in a space of ten years Japoonvale has exceeded it twice. At Tully 234.37 inches were recorded during 1936 and at Harvey Creek the total for 1921 was 254.77 inches. At the South Johnstone Sugar Experiment Station 202.52 inches were recorded in 1921, while 236.33 inches were recorded at Japoonvale in 1936.

In Tasmania the wettest part is in the West Coast region, the average annual rainfall at Lake Margaret being 144 inches, with a maximum of 175.12 inches in 1924.

The driest known part of the continent is in the Lake Eyre district in South Australia (the only part of the continent below sea level), where the annual average is only 5 inches, and where the fall rarely exceeds 10 inches for the twelve months.

The inland districts of Western Australia were at one time regarded as the driest part of Australia, but authentic observations in recent years over most settled districts in the east of that State show that the annual average is about 10 inches.

(v) *Quantities and Distribution of Rainfall.* The general distribution is best seen from the rainfall map herein, which shows the areas subject to average annual rainfalls lying between certain limits. The proportions of the total area of each State and of Australia as a whole enjoying varying quantities of rainfall determined from the latest available information are shown in the following table:—

AVERAGE ANNUAL RAINFALL DISTRIBUTION.

Average Annual Rainfall.	N.S.W. (a)	Victoria.	Queens- land.	South Australia	Western Australia.	Tas- mania. (b)	Northern Territory.	Total. (b)
	%	%	%	%	%	%	%	%
Under 10 inches	19.7	Nil	13.0	82.8	58.0	Nil	24.7	37.6
10—15 "	23.5	22.4	14.4	9.4	22.4	Nil	32.4	19.9
15—20 "	17.5	15.2	19.7	4.5	6.8	0.7	9.7	10.9
20—25 "	14.2	17.9	18.8	2.2	3.7	11.0	6.6	9.1
25—30 "	9.1	18.0	11.6	0.8	3.7	11.4	9.3	7.3
30—40 "	9.9	16.1	11.1	0.3	3.3	20.4	4.7	6.6
Over 40 "	6.1	10.4	11.4	Nil	2.1	56.5	12.6	8.6
Total ..	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(a) Includes Australian Capital Territory.

(b) Over an area of 2,777 square miles no records are available.

Referring first to the capital cities the records of which are given in the next table, it will be seen that Sydney, with a normal rainfall of 46.46 inches, occupies the chief place: Brisbane, Perth, Melbourne, Hobart, Canberra and Adelaide follow in that order, Adelaide with 21.11 inches being the driest. The extreme range from the wettest to the driest year is greatest at Brisbane (72.09 inches) and least at Adelaide (19.49 inches).

In order to show how the rainfall is distributed throughout the year in various parts of the continent, average figures for the various climatological districts have been selected. (See map on p. 38). The figures for Northern Rivers, District 14, show that nearly the whole of the rainfall occurs there in the summer months, while little or none falls in the middle of the year. The figures for the Central Coast, south-west of Western Australia (District 9), are the reverse for, while the summer months are dry, the winter ones are very wet. In the districts containing Melbourne and Hobart the rain is fairly well distributed throughout the twelve months, with a maximum in October for both districts. In Queensland, the heaviest rains fall in the summer months, but good averages are also maintained during the other seasons in eastern parts.

On the coast of New South Wales, the first half of the year is the wettest, with heaviest falls in the autumn; the averages during the last six months are fair, and moderately uniform. Generally it may be said that approximately one-third of the area of the continent, principally in the eastern and northern parts, enjoys an annual average rainfall of from 20 to 50 inches or more, the remaining two-thirds averaging from 5 to 20 inches.

(vi) *Curves of Rainfall and Evaporation.* The relative amounts of rainfall and evaporation at different times through the year are clearly indicated in the graphs herein. Inspection thereof will show how large is the evaporation when water is fully exposed to the direct rays of the sun and to wind.

(vii) *Tables of Rainfall.* The table of rainfall for a fairly long period of years for each of the various Australian capitals affords information as to the variability of the fall in successive years, and the list of the more remarkable falls furnishes information as to what may be expected on particular occasions.

RAINFALL : AUSTRALIAN CAPITAL CITIES.

Year.	CANBERRA. (a)		PERTH.		ADELAIDE.		BRISBANE.		SYDNEY.		MELBOURNE.		HOBART.	
	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.
	in.		in.		in.		in.		in.		in.		in.	
1920 ..	..	..	40.35	124	26.70	119	39.72	122	43.42	159	28.27	162	18.00	182
21 ..	..	..	41.09	135	22.64	100	54.31	167	43.34	140	29.76	154	18.04	159
22 ..	..	..	31.86	135	23.20	117	35.82	109	39.35	136	25.02	151	28.27	189
23 ..	..	..	44.47	134	29.79	139	23.27	93	37.01	123	22.64	158	32.93	108
24 ..	..	..	33.79	119	23.44	143	41.08	114	37.01	136	36.48	171	28.70	197
25 ..	..	..	31.41	126	21.91	118	53.10	139	50.35	145	17.57	144	22.67	170
26 ..	..	..	49.22	167	22.20	116	30.82	111	37.07	127	20.51	149	25.79	187
27 ..	..	..	36.59	133	16.92	101	62.08	130	48.56	133	17.98	135	20.13	185
28 ..	18.59	90	44.88	140	19.43	107	52.64	145	40.07	130	24.09	151	30.23	205
29 ..	23.12	70	36.77	132	17.51	119	39.78	118	57.90	129	28.81	168	26.55	194
30 ..	17.33	82	39.80	129	18.65	116	41.22	144	44.47	141	25.41	145	19.38	152
31 ..	24.02	103	39.18	118	22.26	145	66.72	136	49.22	153	28.63	164	27.17	179
32 ..	20.18	118	39.40	121	25.04	141	24.79	97	37.47	140	31.08	179	30.29	155
33 ..	20.78	96	32.47	116	22.12	130	49.71	118	42.71	153	22.68	136	23.18	182
34 ..	35.58	131	40.61	120	20.24	125	54.26	117	64.91	183	33.53	157	23.17	194
35 ..	23.78	95	32.28	129	23.45	140	34.64	111	30.97	131	29.98	183	32.22	166
36 ..	26.24	108	30.64	118	19.34	121	21.77	101	30.22	130	21.30	187	19.60	178
37 ..	20.46	82	35.28	120	23.01	128	34.79	113	52.00	157	21.45	144	20.65	160
38 ..	19.26	79	29.64	111	19.26	119	43.49	110	39.17	132	17.63	137	31.32	160
39 ..	27.63	116	25.70	123	23.29	139	41.43	122	33.67	127	33.11	166	27.23	188
40 ..	17.38	64	20.00	98	16.16	116	42.37	93	39.34	125	19.83	126	17.17	135
41 ..	19.55	91	34.74	122	22.56	126	31.50	105	26.74	129	31.78	157	23.49	145
42 ..	25.76	104	39.24	140	25.44	133	44.01	125	48.29	121	29.79	148	19.42	163
43 ..	24.59	123	31.46	117	17.84	135	50.68	126	50.74	136	18.80	150	20.84	149
44 ..	12.05	75	27.39	123	17.13	114	27.85	100	31.04	115	21.32	143	26.23	151
Average	22.14	96	34.59	121	21.11	124	44.61	125	46.46	152	25.57	141	23.95	153
No. of Years	17	17	69	69	106	106	93	93	86	86	89	89	102	101

(a) Commonwealth Forestry Bureau; records in previous issues were for the station at Acton which closed down in 1939.

10. *Remarkable Falls of Rain.*—The following are the most remarkable falls of rain in the various States and Territories which have occurred within a period of twenty-four hours. For other very heavy falls at various localities reference may be made to Official Year Book No. 14, pp. 60–64, No. 22, pp. 46–48 and No. 29, pp. 43, 44 and 51:—

HEAVY RAINFALLS : NEW SOUTH WALES, UP TO 1944, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		in.			in.
Broger's Creek ..	14 Feb., 1898	20.05	South Head (near Sydney) ..	16 Oct., 1844	20.41
" " ..	13 Jan., 1911	20.83	Towamba ..	5 Mar., 1893	20.00
Cordeaux River ..	14 Feb., 1898	22.58	Viaduct Creek ..	15 " 1936	20.00
Morpeth ..	9 Mar., 1893	21.52			

HEAVY RAINFALLS : QUEENSLAND, UP TO 1944, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		in.			in.
Babinda (Cairns) ..	2 Mar., 1935	24.14	Mackay ..	21 Jan., 1918a	24.70
Buderin Mountain	11 Jan., 1898	26.20	Macnade Mill ..	6 ,, 1901	23.33
Crohanhurst			Plane Creek		
(Blackall Range)	2 Feb., 1893	35.71	(Mackay) ..	26 Feb., 1913	27.73
Deeral ..	2 Mar., 1935	27.60	Port Douglas ..	1 Apr., 1911	31.53
Goondi ..	30 Jan., 1913	24.10	Tully Mill ..	12 Feb., 1927	23.86
Harvey Creek ..	3 ,, 1911	27.75	Woodlands (Yepp'n)	3 Jan., 1893	23.07
Kuranda (Cairns) ..	2 Apr., 1911	28.80	Yarrabah ..	2 Apr., 1911	30.65

(a) 37½ hours.

HEAVY RAINFALLS : WESTERN AUSTRALIA, UP TO 1944, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		in.			in.
Balla Balla ..	21 Mar., 1899	14.40	Pilbara ..	2 Apr., 1898	14.04
Boodarie ..	21 Jan., 1896	14.53	Roebuck Plains ..	5 Jan., 1917	14.01
Broome ..	6 ,, 1917	14.00	" ..	6 ,, 1917	22.36
Derby ..	7 ,, 1917	16.47	Thangoc ..	17-19 Feb. '96	24.18
Fortescue ..	3 May, 1890	23.36	Towrana ..	1 Mar., 1943	12.16
Jimba Jimba ..	1 Mar., 1943	11.54	Whim Creek ..	3 Apr., 1898	29.41
Marble Bar ..	2 ,, 1941	12.00	Winderrie ..	17 Jan., 1923	14.23

HEAVY RAINFALLS : NORTHERN TERRITORY, UP TO 1944, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		in.			in.
Bathurst Island			Cape Don ..	13 Jan., 1934	13.58
Mission ..	7 Apr., 1925	11.85	Darwin ..	7 Dec., 1915	11.67
Birimbah ..	6 Mar., 1935	16.50	Groote Eylandt ..	25 Mar., 1940	11.75
Borroloola ..	14 ,, 1899	14.00	Timber Creek ..	5 Feb., 1942	13.65
Brook's Creek ..	24 Dec., 1915	14.33			

HEAVY RAINFALLS : SOUTH AUSTRALIA, UP TO 1944, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		in.			in.
Coober Pedy ..	19 Feb., 1938	6.50	Nunjikompita ..	21 Feb., 1938	6.50
Lobethal ..	18 Apr., 1938	6.44	Wilmington ..	1 Mar., 1921	7.12

HEAVY RAINFALLS : VICTORIA, UP TO 1944, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		in.			in.
Blackwood "Greenhill" ..	26 Jan., 1941	8.98	Korumburra ..	1 Dec., 1934	8.51
Cann River ..	16 Mar., 1938	9.94	Mt. Buffalo ..	6 June, 1917	8.53
Cunninghame ..	26 Dec., 1935	8.50	Murrungowar ..	16 Mar., 1938	8.36
Erica ..	1 Dec., 1934	8.66	Olinda ..	1 Dec., 1934	9.10
Hazel Park ..	1 ,, "	10.50	Tambo Crossing ..	13 July, 1925	8.89
Kalorama ..	1 ,, "	10.05	Tonghi Creek ..	27 Feb., 1919	9.90

HEAVY RAINFALLS : TASMANIA, UP TO 1944, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		in.			in.
Cullenswood ..	5 Apr., 1929	11.12	Riana ..	5 Apr., 1929	11.08
Gould's Country ..	8-10 Mar., '11	15.33	The Springs ..	30-31 Jan., '16	10.75
Lottah ..	8-10 ,, "	18.10	Triabunna ..	5 June, 1923	10.20
Mathinna ..	5 Apr., 1929	13.25			

HEAVY RAINFALLS : AUSTRALIAN CAPITAL TERRITORY, UP TO 1944, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		in.			in.
Canberra ..	27 May, 1925	6.84	Uriarra ..	27 May, 1925	6.57
Cotter Junction ..	" "	7.13			

11. **Snowfall.**—Light snow has been known to fall occasionally as far north as latitude 31° S., and from the western to the eastern shores of the continent. During exceptional seasons, it has fallen simultaneously over two-thirds of New South Wales, and has extended at times along the whole of the Great Dividing Range, from its southern extremity in Victoria as far north as Toowoomba in Queensland. During the winter, for several months, snow covers the ground to a great extent on the Australian Alps, where also the temperature falls below zero Fahrenheit during the night. In the ravines around Mt. Kosciusko and similar localities the snow never entirely disappears after a severe winter.

12. **Hail.**—Hail falls most frequently along the southern shores of the continent in the winter, and over eastern Australia during the summer months. The size of the hailstones generally increases with distance from the coast. A summer rarely passes without some station experiencing a fall of stones exceeding in size an ordinary hen-egg, and many riddled sheets of light-gauge galvanized iron bear evidence of the weight and penetrating power of the stones.

The hailstones occur most frequently when the barometric readings indicate a flat and unstable condition of pressure. Tornadoes or tornadic tendencies are almost invariably accompanied by hail, and on the east coast the clouds from which the stones fall are frequently of a remarkable sepia-coloured tint.

13. **Barometric Pressures.**—The mean annual barometric pressure (corrected to sea level and standard gravity) in Australia varies from 29.80 inches on the north coast to 29.92 inches over the central and 30.03 inches in the southern parts of the continent. In January, the mean pressure ranges from 29.70 inches in the northern and central areas to 29.95 inches in the southern. The July mean pressure ranges from 29.90 inches at Darwin to 30.11 inches at Alice Springs. Barometer readings corrected to mean sea level and standard gravity have, under anticyclonic conditions in the interior of the continent, ranged as high as 30.78 inches (at Kalgoorlie on 28th July, 1901) and have fallen as low as 27.55 inches. This lowest record was registered at Mackay during a tropical hurricane on 21st January, 1918. An almost equally abnormal reading of 27.88 inches was recorded at Innisfail during a similar storm on 10th March, 1918. The mean barometric pressure for the Australian capitals is shown on the graphs herein.

14. **Wind.**—(i) *Trade Winds.* The two distinctive wind currents in Australia are as previously stated, the south-east trade and the prevailing westerly winds. As the belt of the earth's atmosphere in which they blow apparently follows the sun's ecliptic path north and south of the equator, so the area of the continent affected by these winds varies at different seasons of the year. During the summer months the anticyclonic belt travels in very high latitudes, thereby bringing the south-east trade winds as far south as 30° south latitude. The prevailing westerly winds retreat a considerable distance to the south of Australia, and are rarely in evidence in the hot months. When the sun passes to the north of the equator, the south-east trade winds follow it, and only operate to the north of the tropics for the greater part of the winter. The westerly winds come into lower latitudes during the same period of the year. They sweep across the southern areas of the continent from the Leeuwin to Cape Howe, and during some seasons are remarkably persistent and strong, and occasionally penetrate to almost tropical latitudes.

(ii) *North-west Monsoon.* As the belt of south-east trade winds retreats southward during the summer, it is replaced in the north and north-west of Australia first by a sequence of light variable winds and then by the north-west monsoon. In Australia, the north-west monsoon has not the persistence nor regularity of the Indian south-west monsoon but is sufficiently characteristic for the summer in the north of Australia to be called the "North-west Season". In Central and Eastern Queensland, the north-west monsoon in the summer has comparatively little effect and the trade winds, albeit

weakened, are still the dominant winds. With the migration of the sun northward in the autumn, the north-west monsoon is itself replaced first by light variable winds and then by the trade winds.

(iii) *Land and Sea Breezes.* The prevailing winds next in order of importance are the land and sea breezes. On the east coast the sea breezes which come in from the north-east, when in full force, frequently reach the velocity of a gale during the afternoon in the summer months, the maximum hourly velocity, ordinarily attained about 3 p.m., not infrequently attaining a rate of 35 to 40 miles per hour. This wind, although strong, is usually shallow in depth, and does not ordinarily penetrate more than 9 or 12 miles inland.

The land breezes on the east coast blow out from a westerly direction during the night.

On the western shores of the continent the directions are reversed. The sea breezes come in from the south-west, and the land breezes blow out from the north-east.

(iv) *Inland Winds.* Inland, the direction of the prevailing winds is largely regulated by the seasonal changes of pressure, so disposed as to cause the winds to radiate spirally outward from the centre of the continent during the winter months, and to circulate spirally from the seaboard to the centre of Australia during the summer months.

(v) *Prevailing Direction at the Capital Cities.* In Canberra at 9 a.m. the air is usually calm, particularly during the winter months, but such winds as do occur are predominantly north-westerly, though a proportion of south-easterly winds occur during the autumn. At 3 p.m. the predominant wind is north-westerly.

In Perth at 9 a.m. north-east to south-east winds prevail from September to May, while from May to September north-east to north winds predominate. At 3 p.m. the prevailing wind is south-west to south during the warmer months and between north-west and south at other times.

In Adelaide at 9 a.m., the predominant wind is north-easterly from May to August, but during the rest of the year no particular direction is outstanding. At 3 p.m. the predominant wind is south-westerly for all months except June, July and August. Throughout the year winds with an easterly component are rare in the afternoon.

In Brisbane at 9 a.m. the most frequent winds during the colder two-thirds of the year come from the south or south-west, while in the warmer months south to south-east winds are more usual. At 3 p.m. winds with an easterly component predominate, especially north-easterlies during the warmer half of the year.

In Sydney at 9 a.m., by far the most prevailing wind is a westerly, particularly during the colder two-thirds of the year. At 3 p.m. during the warmer two-thirds of the year. winds with an easterly component are most frequent with a smaller proportion of southerlies and westerlies during the winter months.

In Melbourne at 9 a.m., northerlies are the most frequent winds during the period February to October with a moderate proportion of westerlies in the spring. During the summer months, winds with a southerly component are in evidence to a slightly greater degree than any others. At 3 p.m. southerly winds prevail during the warmer two-thirds of the year with the frequency of northerlies increasing during the colder months.

In Hobart at 9 a.m. the most favoured directions are from the north-west and north with a good proportion of south-easterlies showing up at 3 p.m. during the warmer months.

15. *Cyclones and Storms.*—The "elements" in Australia are ordinarily peaceful, and while destructive cyclones have visited various parts, more especially coastal areas, such visitations are rare, and may be properly described as erratic.

During the winter months, the southern shores of the continent are subject to cyclonic storms, evolved from the V-shaped depressions of the southern low-pressure belt. They are felt most severely over the south-western parts of Western Australia, to the south-east of South Australia, in Bass Strait, including the coast-line of Victoria, and on the west coast of Tasmania. Apparently the more violent wind pressures from these cyclones are experienced in their northern half, or in that part of them which has a north-westerly to a south-westerly circulation.

The north-east coast of Queensland is occasionally visited by hurricanes from the north-east tropics. During the first four months of the year, these hurricanes appear to have their origin in the neighbourhood of the South Pacific Islands, their path being a parabolic curve first to the south-west and finally towards the south-east. Only a small percentage, however, reach Australia, the majority recurring in their path to the east of New Caledonia.

Very severe cyclones, locally known as "willy willies," are peculiar to the north-west coast of Western Australia from the months of November to April, inclusive. They usually originate over the ocean to the north or north-west of Australia, and travel in a south-westerly direction with continually increasing force, displaying their greatest energy near Cossack and Onslow, between latitudes 20° and 22° South. The winds in these storms, like those from the north-east tropics, are very violent and destructive, and cause great havoc amongst the pearl-fishers. The greatest velocities are usually to be found in the south-eastern quadrant of the cyclones, with north-east to east winds. After leaving the north-west coast, these storms either travel southwards, following the coast-line, or cross the continent to the Great Australian Bight. When they take the latter course, their track is marked by torrential rains, as much as 29.41 inches, for example, being recorded in 24 hours at Whim Creek from one such occurrence. Falls of 10 inches and over have frequently been recorded in the northern interior of Western Australia from similar storms.

Some further notes on severe cyclones and on "southerly bursters", a characteristic feature of the eastern part of Australia, appear in previous issues of the Official Year Book (see No. 6, pp. 84-86), and a special article dealing with "Australian Hurricanes and Related Storms" appears in Official Year Book No. 16, pp. 80-84.

16. Influences affecting Australian Climate.—(i) *General.* Australian history does not cover a sufficient period, nor is the country sufficiently occupied, to ascertain whether or not the advance of settlement has materially affected the climate as a whole. Local changes have, however, taken place, a fact which suggests that settlement and the treatment of the land have a distinct effect on local conditions. For example, low-lying lands on the north coast of New South Wales, which originally were seldom subject to frosts, have, with the denudation of the surrounding hills from forests, experienced annual visitations, the probable explanation being that through the absence of trees the cold air of the highlands now flows unchecked and untempered down the sides of the hills to the valleys and lower lands.

(ii) *Influence of Forest on Climate.* As already indicated, forests doubtless exercise a great influence on local climate, and hence, to the extent that forestal undertakings will allow, the weather can be controlled by human agency. The direct action of forests is an equalizing one; thus, especially in equatorial regions, and during the warmest portion of the year, they considerably reduce the mean temperature of the air. They also reduce the diurnal extremes of shade temperatures by altering the extent of radiating surface by evaporation, and by checking the movement of air, and while decreasing evaporation from the ground, they increase the relative humidity. Vegetation greatly diminishes the rate of flow-off of rain and the washing away of surface soil, and when a region is protected by trees, a steadier water supply is ensured, and the rainfall is better conserved. In regions of snowfall, the supply of water to rivers is similarly regulated, and without this and the sheltering influence of ravines and "gullies," watercourses supplied mainly by melting snow would be subject to alternative periods of flooding and dryness. This is borne out in the case of the inland rivers, the River Murray, for example, which has never been known to become dry, deriving its steadiness of flow mainly through the causes indicated.

(iii) *Direct Influence of Forests on Rainfall.* Whether forests have a direct influence on rainfall is a debatable question, some authorities alleging that precipitation is undoubtedly induced by forests, while others take the opposite view.

Sufficient evidence exists, however, to prove that, even if the rainfall has not increased, the beneficial climatic effect of forest lands more than warrants their protection and extension. Rapid rate of evaporation, induced by both hot and cold winds, injures crops and makes life uncomfortable on the plains, and, while it may be doubted that the forest aids in increasing precipitation, it must be admitted that it does check winds and the rapid evaporation due to them. Trees as wind-breaks have been successfully planted in central parts of the United States of America, and there is no reason why similar experiments should not be successful in many parts of the treeless interior of Australia. The belts should be planted at right angles to the direction of the prevailing parching winds, and if not more than half a mile apart will afford shelter to the enclosed areas.

17. Rainfall and Temperatures, Various Cities.—The Official Year Book No. 34, p. 28, shows rainfall and temperature for various important cities throughout the world, and for the Australian capitals.

18. Climatological Tables.—The averages and extremes for a number of climatological elements have been determined from long series of observations at the Australian capitals up to and including the year 1942 (Canberra to 1944). These are given in the following tables:—

CLIMATOLOGICAL DATA: CANBERRA, AUSTRALIAN CAPITAL TERRITORY.

LAT. 35° 18' S., LONG. 149° 06' E. HEIGHT ABOVE M.S.L. 1,906 FT.

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS.

Month.	Bar. corrected to 32° F. M.S. Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Anemometer		Wind.		Prevailing Direction.	Mean Amount of Evaporation (inches).	No. of Days Lightning.	Mean Amount of Clouds 9 a.m., 3 p.m. and 9 p.m.	No. of Clear Days.	
		Mean Speed (miles per hour).	Highest Mean Speed in One Day (miles per hour).	Max. Gust Speed (miles per hour).	20 feet above surface.						
					9 a.m.						3 p.m.
No. of years observations.	14	16	10	(a)	17	17	16	7	14	15	
January	29.826	5.4	14.9	23/33	—	NW	NW	8.913	0.7	5.0	6.4
February	20.897	4.8	15.3	24/33	—	E & NNW	NW	7.185	2.7	4.6	0.8
March	30.016	4.3	18.2	28/42	—	SE	NW	5.819	0.0	5.1	6.5
April ..	30.059	4.1	13.6	29/29	—	SE & NW	NW	3.499	0.4	5.6	4.3
May ..	30.165	3.3	12.6	3/30	—	SE & NW	NW	2.051	0.2	5.5	5.6
June ..	30.146	3.8	16.1	2/30	—	NW	NW	1.274	0.0	6.1	4.2
July ..	30.128	3.7	23.4	7/31	—	NW	NW	1.330	0.0	5.7	4.9
August	30.073	4.5	15.7	25/36	—	NW	NW	1.867	0.0	5.5	5.0
September	30.041	5.0	17.4	28/34	—	NW	NW	3.086	0.6	5.2	5.9
October	29.976	4.7	12.4	27/40	—	NW	NW	4.792	0.7	5.2	5.9
November	29.908	5.2	17.2	28/42	—	NW	NW	6.302	1.0	5.5	4.6
December	29.835	5.4	16.1	11/38	—	NW	NW	8.047	1.0	5.3	5.2
Year {	Totals ..	—	—	—	—	—	—	54.165	7.3	—	65.3
	Averages	30.006	4.5	—	—	NW	NW	—	—	—	—
	Extremes	—	—	23.4	7/7/31	—	—	—	—	5.4	—

CLIMATOLOGICAL DATA : PERTH, WESTERN AUSTRALIA.

LAT. 31° 57' S., LONG. 115° 51' E. HEIGHT ABOVE M.S.L. 197 FT..

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS.

Month.	Bar. corrected to 32° F. M.S. Sea Level and Stan- dard Gravity from 9 a.m. and 3 p.m. readings	Wind.				Prevailing Direction.	Mean Amount of Evaporation (inches).	No. of Days Lightning.	Mean Amount of Clouds 9 a.m., 3 p.m. and 9 p.m.	No. of Clear Days.	
		Anemometer 71 feet above surface.			Max. Gust Speed (miles per hour).						
		Mean Speed (miles per hour).	Highest Mean Speed in One Day (miles per hour).								
No. of yrs. over which observations extend.		58	44	44	30	43	43	44	46	35	46
January ..	29.905	14.6	33.2	27/98	49	ESE	SSW	10.35	1.9	2.9	14.2
February ..	29.925	14.0	27.1	6/08	50	ESE	SSW	8.64	1.5	3.0	12.5
March ..	29.983	13.1	27.1	6/13	54	ESE	SSW	7.50	1.7	3.5	12.1
April ..	30.071	11.0	30.8	25/00	61	E	SSW	4.72	1.6	4.2	8.5
May ..	30.067	10.7	34.4	24/32	73	NE	SW	2.74	2.4	5.4	5.7
June ..	30.060	11.0	38.1	17/27	80	NNE	WNW	1.75	2.3	5.9	4.1
July ..	30.092	11.3	42.3	20/26	73	NNE	W	1.71	2.0	5.6	5.1
August ..	30.083	11.9	40.3	15/03	72	NNE	WSW	2.35	1.6	5.6	5.5
September ..	30.065	12.1	36.0	11/05	75	NE	WSW	3.40	1.2	4.9	6.4
October ..	30.032	12.9	33.7	6/16	61	SE	SW	5.34	1.0	4.9	6.8
November ..	29.991	13.7	32.4	18/07	54	SE	SW	7.64	1.5	3.9	8.5
December ..	29.927	14.3	32.3	6/22	58	SE	SSW	9.77	1.8	3.2	12.8
Year {	Totals ..	—	—	—	—	—	—	65.91	20.5	—	102.2
	Averages ..	30.017	12.6	—	—	E	SW	—	—	4.4	—
	Extremes ..	—	—	42.3 20/7/26	80	—	—	—	—	—	—

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (Fahr.).			Extreme Shade Temperature (Fahr.).		Extreme Range.	Extreme Temperature (Fahr.).		Mean of Hours of Sunshine.
	Mean Max.	Mean Min.	Mean	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of yrs. over which observations extend.	46	46	46	46	46	46	45	45	45
January	84.6	63.2	73.9	110.2 21/34	48.6 20/25	61.6	177.3 22/14	40.4 1/21	323.7
February .. .	85.1	63.5	74.3	112.2 8/33	47.7 1/02	64.5	173.7 4/34	39.8 1/13	275.8
March	81.4	61.2	71.3	106.4 14/22	45.8 8/03	60.6	167.0 19/08	36.7 8/03	269.8
April	76.2	57.2	66.7	99.7 9/10	39.3 20/14	60.4	157.0 8/16	31.0 21/14	219.7
May	69.0	52.8	60.9	90.4 2/07	34.3 11/14	56.1	146.0 4/25	25.3 11/14	177.9
June	64.1	49.7	56.9	81.7 2/14	35.0 30/20	46.7	135.5 9/14	20.3 11/37	145.1
July	62.7	47.8	55.3	76.4 21/21	34.2 7/16	42.2	132.9 25/13	25.1 30/20	165.5
August	63.9	48.4	56.1	81.0 12/14	35.4 31/08	45.6	145.1 29/21	20.7 24/35	185.6
September ..	66.5	50.3	58.4	90.9 30/18	38.8 18/00	52.1	153.6 29/16	29.2 21/16	209.7
October	69.3	52.5	60.9	95.3 30/22	40.0 16/31	55.3	157.5 31/36	29.8 16/31	245.5
November ..	76.1	56.9	66.5	104.6 24/13	42.0 1/04	62.6	167.0 13/15	35.4 6/10	289.4
December ..	81.3	60.9	71.1	107.9 20/04	48.0 2/10	59.9	168.8 11/25	39.0 (a)	325.3
Year { Averages ..	73.4	55.4	64.4	—	—	—	—	—	2833.06
Year { Extremes ..	—	—	—	112.2 8/2/33	34.2 7/7/16	78.0	177.3 22/1/14	25.1 30/7/20	—

(a) 2/1910 and 12/1920.

(b) Total for year.

HUMIDITY, RAINFALL AND FOG.

Month.	Vapour Pressure (inches).	Rel. Hum. (%) at 9 a.m.			Rainfall (inches).					Fog.
	Mean 9 a.m.	Mean.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.	
No. of yrs. over which observations extend.	45	45	45	45	66	66	66	66	66	46
January ..	0.435	51	61	41	0.33	3	2.17 1879	0.00 (a)	1.74 27/79	0.2
February ..	0.446	53	65	46	0.39	3	2.98 1915	0.00 (a)	1.63 26/15	0.2
March ..	0.433	58	66	46	0.82	4	5.71 1934	0.00 (a)	3.03 9/34	0.5
April ..	0.394	61	73	51	1.73	7	5.85 1926	0.00 1920	2.62 30/04	0.9
May ..	0.366	72	81	61	5.07	14	12.13 1879	0.98 1903	3.00 17/42	1.4
June ..	0.338	76	83	68	7.09	17	12.80 1923	2.16 1877	3.90 6/20	1.5
July ..	0.316	76	84	69	6.71	18	12.28 1926	2.42 1876	3.00 4/91	1.7
August ..	0.320	73	79	62	5.72	18	12.21 1928	0.46 1902	2.79 7/03	0.9
September ..	0.340	67	75	58	3.39	15	7.84 1923	0.34 1916	1.82 4/31	0.2
October ..	0.344	60	75	54	2.18	12	7.87 1890	0.49 1892	1.73 3/33	0.1
November ..	0.375	54	63	46	0.76	6	2.78 1916	0.00 1891	1.37 2/38	0.1
December ..	0.408	50	63	44	0.56	4	3.05 1888	0.00 (b)	1.72 1/88	0.2
Year { Totals ..	—	—	—	—	34.75	121	—	—	—	7.9
Year { Averages ..	0.371	61	—	—	—	—	—	—	—	—
Year { Extremes ..	—	—	84	41	—	—	12.80 6/1923	0.00 (c)	3.90 6/6/20	—

(a) Various years.

(b) 1886 and 1924.

(c) Various months in various years.

CLIMATOLOGICAL DATA : ADELAIDE, SOUTH AUSTRALIA.

LAT. 34° 56' S., LONG. 138° 35' E. HEIGHT ABOVE M.S.L. 140 FT.

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS.

Month.	Bar. corrected to 32° F. Mm.Sea level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind. Anemometer 75 feet above surface.						Mean Amount of Evaporation (inches).	No. of Days Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m. and 9 p.m.	No. of Clear Days.
		Mean Speed (miles per hour).	Highest Mean Speed in One Day (miles per hour).	Max. Gust Speed (miles per hour).a	Prevailing Direction.						
					9 a.m.	3 p.m.					
No. of years observations.	86	65	65	26	65	65	73	71	75	61	
January ..	29.916	10.5	31.6 19/99	72	SW	SW	9.15	2.2	3.6	8.7	
February ..	29.954	9.7	28.8 22/96	57	NE	SW	7.46	1.9	3.5	7.8	
March ..	30.038	8.8	26.2 9/12	52	S	SW	6.08	2.0	4.0	7.5	
April ..	30.120	8.4	32.2 10/96	57	NE	SW	3.59	1.6	5.0	4.6	
May ..	30.126	8.3	31.7 9/80	55	NE	NW	2.12	1.7	5.8	2.4	
June ..	30.104	8.9	31.3 12/78	56	NE	N	1.30	1.8	6.2	1.8	
July ..	30.125	8.9	28.1 25/82	55	NE	NW	1.31	1.6	5.9	1.9	
August ..	30.094	9.5	32.2 31/97	56	NE	SW	1.92	2.1	5.6	2.7	
September ..	30.043	10.0	30.0 2/87	69	NNE	SW	2.93	2.2	5.2	3.4	
October ..	30.000	10.4	32.0 28/98	59	NNE	SW	4.88	3.2	5.1	3.9	
November ..	29.980	10.4	28.2 2/04	63	SW	SW	6.71	3.2	4.7	5.5	
December ..	29.932	10.5	28.1 12/91	75	SW	SW	8.59	2.5	4.0	7.0	
Year {	Totals ..	—	—	—	—	—	56.04	26.0	—	57.2	
	Averages	30.035	9.5	—	—	NE	SW	—	—	4.9	—
	Extremes	—	—	32.2 (b)	75	—	—	—	—	—	—

(a) Figures previously published estimated from Cup Anemographs in use prior to 1917. and 31/8/97.

(b) 20/4/96

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (Fahr.).			Extreme Shade Temperature (Fahr.).		Extreme Range.	Extreme Temperature (Fahr.).		Mean Hours of Sunshine.
	Mean Max.	Mean Min.	Mean	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of yrs. over which observations extend.	86	86	86	86	86	86	55	82	61
January ..	85.9	61.4	73.7	117.7 12/39	45.1 21/84	72.6	180.0 18/82	36.5 14/79	307.0
February ..	85.9	61.8	73.9	113.6 12/99	45.5 23/18	68.1	170.5 10/00	35.8 23/26	262.8
March ..	81.0	59.0	70.0	110.5 9/34	43.9 21/33	66.6	174.0 17/83	32.1 21/33	240.6
April ..	73.3	54.6	63.9	98.6 5/38	39.6 15/59	59.0	155.0 1/83	30.2 16/17	179.8
May ..	65.9	50.3	58.1	89.5 4/21	36.9 (a)	52.6	148.2 12/79	25.6 19/28	148.5
June ..	60.5	46.7	53.6	76.0 23/65	32.5 27/76	43.5	138.8 18/79	22.9 12/13	122.9
July ..	59.1	44.8	51.9	74.0 11/06	32.0 24/08	42.0	134.5 26/90	22.1 30/29	135.4
August ..	62.0	45.9	53.9	85.0 31/11	32.3 17/59	52.7	140.0 31/92	22.8 11/29	164.0
September ..	66.4	47.9	57.1	90.7 23/82	32.7 4/58	58.0	160.5 23/82	25.0 25/27	184.9
October ..	72.5	51.4	61.9	102.9 21/22	36.0 —/57	66.9	162.0 30/21	27.8 (b)	226.7
November ..	78.6	55.3	66.9	113.5 21/65	40.8 2/09	72.7	166.9 20/78	31.5 2/09	261.5
December ..	83.2	58.9	71.1	114.6 29/31	43.0 (c)	71.6	175.7 7/99	32.5 4/84	298.2
Year { Averages	72.8	53.2	63.0	—	—	—	—	—	2532.3d
Extremes	—	—	—	117.7 12/1/39	32.0 24/7/08	85.7	180.0 18/1/82	22.1 30/7/29	—

(a) 26/1895 and 24/1904.

(b) 2/1918 and 4/1931.

(c) 16/1861 and 4/1906.

(d) Total for year.

HUMIDITY, RAINFALL AND FOG.

Month.	Vapour Pressure (inches).	Rel. Hum. (%) at 9 a.m.			Rainfall (inches).					Fog.
		Mean.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days of Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.	
No. of yrs. over which observations extend.	75	75	75	75	104	104	104	104	104.	43
January ..	0.339	38	59	29	0.78	4	4.00 1850	0.00 (a)	2.30 2/89	—
February ..	0.357	41	56	30	0.74	4	6.09 1925	0.00 (a)	5.57 7/25	—
March ..	0.345	46	58	29	1.01	6	4.66 1878	0.00 (a)	3.50 5/78	—
April ..	0.336	56	72	37	1.76	10	6.78 1853	0.03 1923	3.15 5/60	—
May ..	0.316	67	76	49	2.70	13	7.75 1873	0.10 1934	2.73 1/53	0.5
June ..	0.297	76	84	67	3.04	16	8.58 1916	0.42 1886	2.11 1/20	1.1
July ..	0.279	76	87	66	2.63	16	5.38 1865	0.37 1899	1.75 10/65	1.4
August ..	0.286	69	78	54	2.55	16	6.84 1852	0.35 1914	2.23 19/31	0.5
September ..	0.293	60	72	44	2.90	14	5.83 1923	0.45 1866	1.59 20/23	0.2
October ..	0.298	51	67	29	1.60	11	3.83 1870	0.17 1914	2.24 16/08	—
November ..	0.307	42	57	31	1.17	8	4.10 1934	0.04 1885	2.08 7/34	—
December ..	0.321	39	50	31	1.02	6	3.98 1861	0.00 1904	2.42 23/13	—
Year { Totals	—	—	—	—	21.18	124	—	—	—	3.7
Averages	0.309	53	—	—	—	—	8.58 6/16	0.00 (b)	5.57 7/2/25	—
Extremes	—	—	87	29	—	—	—	—	—	—

(a) Various years.

(b) Various months in various years.

CLIMATOLOGICAL DATA : BRISBANE, QUEENSLAND.

LAT. 27° 28' S., LONG. 153° 2' E. HEIGHT ABOVE M.S.L. 134 FT.

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS.

Month.	No. of years observations.	Bar. corrected to 32° F. M.S. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind. Anemometer 105 feet above surface.				Prevailing Direction.	Mean Amount of Evaporation (inches).	No. of Days Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m. and 9 p.m.	No. of Clear Days.	
			Mean Speed (miles per hour).	Highest Mean Speed in One Day (miles per hour).	Max. Gust Speed (miles per hour).	Direction.						
						9 a.m.						3 p.m.
56	28	28	28	56	56	34	56	51	34			
January	..	29.868	7.1	15.5 18/42	51	SE	E & NE	6.715	7.2	5.7	3.4	
February	..	29.904	7.1	21.0 5/31	67	S & SE	NE & E	5.424	5.6	5.8	2.4	
March	..	29.964	6.7	20.3 1/29	50	S	SE & E	5.044	4.6	5.3	5.1	
April	..	30.044	6.2	16.7 3/25	57	S	SE & E	3.992	3.9	4.5	7.4	
May	..	30.088	5.9	17.9 17/26	45	S	SE	3.090	3.2	4.3	8.1	
June	..	30.075	5.9	19.0 14/28	58	SW & S	S & W	2.429	2.4	4.2	9.0	
July	..	30.079	5.7	15.0 2/23	52	S & SW	SW	2.706	2.6	3.7	12.2	
August	..	30.096	5.9	14.8 4/35	53	S & SW	SW & NE	3.489	3.7	3.3	13.1	
September	..	30.050	6.1	13.7 4/31	53	S & SW	NE & E	4.503	5.5	3.4	12.7	
October	..	30.006	6.5	15.7 1/41	62	S	NE	5.678	6.7	4.1	8.0	
November	..	29.959	6.9	15.5 10/28	59	SE & NE	NE	6.301	8.6	4.9	5.7	
December	..	29.891	7.2	19.5 15/26	78	SE	NE	6.989	9.3	5.3	3.8	
Year {	Totals ..	—	—	—	—	—	—	56.360	63.3	—	90.9	
	Averages ..	30.000	6.4	—	—	S	NE	—	—	4.5	—	
	Extremes ..	—	—	21.0 5/31	78	—	—	—	—	—	—	

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (Fahr.).			Extreme Shade Temperature (Fahr.).		Extreme Range.	Extreme Temperature (Fahr.).		Mean Hours of Sunshine.
	Mean Max.	Mean Min.	Mean	Highest.	Lowest.		Highest. in Sun.	Lowest on Grass.	
No. of yrs. over which observations extend.	56	56	56	56	56	56	48	56	34
January	85.4	69.1	77.3	109.8 26/40	58.8 4/93	51.0	169.0 2/37	49.9 4/93	232.8
February .. .	84.4	68.6	76.5	105.7 21/25	58.5 23/31	47.2	165.2 6/10	49.1 23/31	206.9
March	82.3	66.4	74.4	99.4 5/19	52.4 29/13	47.0	162.5 6/39	45.4 29/13	213.8
April	78.9	61.5	70.2	95.2 (a)	44.4 25/25	50.8	153.8 11/16	36.7 24/25	211.2
May	73.6	55.6	64.6	90.3 21/23	41.3 24/99	49.0	147.0 1/10	29.8 8/97	203.7
June	69.3	51.2	60.3	88.9 19/18	36.3 29/08	52.6	136.0 3/15	25.4 23/88	186.8
July	68.5	48.8	58.6	83.4 28/98	36.1 (b)	47.3	146.1 20/15	23.9 11/90	212.7
August	71.2	50.0	60.6	88.5 25/28	37.4 6/87	51.1	141.9 20/17	27.1 9/99	241.4
September ..	75.6	54.8	65.2	95.2 16/12	40.7 1/96	54.5	155.5 26/03	30.4 1/89	247.4
October	79.4	60.1	69.8	101.4 18/93	43.3 3/99	58.1	157.4 31/18	34.9 8/89	257.5
November ..	82.4	64.3	73.4	106.1 18/13	48.5 2/05	57.6	162.3 7/89	38.8 1/05	244.0
December ..	84.7	67.4	76.1	105.9 26/93	56.4 13/12	49.5	162.1 26/37	49.1 3/94	252.5
Year { Averages ..	78.0	59.8	68.9	—	—	—	—	—	—
Year { Extremes ..	—	—	—	109.8 26/1/40	36.1 (c)	73.7	169.0 2/1/37	23.9 11/7/90	2710.7d

(a) 9/1896 and 5/1903.

(b) 12/1894 and 2/1896.

(c) 12/7/94 and 2/7/96.

(d) Total for year.

HUMIDITY, RAINFALL AND FOG.

Month.	Vapour Pres- sure (inches).	Rel. Hum. (%).			Rainfall (inches).						Fog.
		At 9 a.m.									
		Mean 9 a.m.	Mean.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.	Mean No. of Days Fog.
No. of yrs. over which observations extend.	56	56	56	56	91	82	91	91	73	56	
January ..	0.641	66	79	53	6.38	13	27.72 1895	0.32 1919	18.31 21/87	0.5	
February ..	0.646	69	82	55	6.27	13	40.39 1893	0.58 1849	10.61 6/31	0.7	
March ..	0.615	72	85	56	5.74	14	34.04 1870	0.00 1849	11.18 14/08	1.3	
April ..	0.521	72	80	60	3.70	11	15.28 1867	0.05 1897	5.46 5/33	2.7	
May ..	0.426	73	85	61	2.79	10	13.85 1876	0.00 1846	5.62 9/79	3.9	
June ..	0.358	73	84	63	2.61	8	14.03 1873	0.00 1847	6.01 9/93	3.9	
July ..	0.328	72	81	61	2.16	8	8.46 1889	0.00 1811	3.54 (c)	3.9	
August ..	0.346	68	80	56	1.90	7	14.67 1879	0.00 (a)	4.89 12/87	4.4	
September ..	0.406	63	76	47	1.93	8	5.43 1886	0.10 1907	2.46 2/94	2.6	
October ..	0.473	59	72	48	2.54	9	9.99 1882	0.14 1900	3.75 3/27	1.4	
November ..	0.536	60	72	45	3.74	11	12.41 1917	0.00 1842	4.46 16/86	0.5	
December ..	0.596	61	70	51	4.95	12	17.36 1942	0.35 1865	6.60 25/71	0.3	
Year { Totals ..	—	—	—	—	44.71	124	—	—	—	26.1	
Year { Averages ..	0.491	68	—	—	—	—	—	—	—	—	
Year { Extremes ..	—	—	85	45	—	—	40.39 2/93	0.00 (b)	18.31 21/1/87	—	

(a) 1862, 1869, 1880.

(b) Various months in various years.

(c) 15/1876 and 16/1886.

CLIMATOLOGICAL DATA : SYDNEY, NEW SOUTH WALES.

LAT. 33° 52' S., LONG. 151° 12' E. HEIGHT ABOVE M.S.L. 138 FT.

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS.

Month.	No. of years observations.	Bar. corrected to 32° F. M.S. Sea Level and Stan- dard Gravity from 9 a.m. and 3 p.m. readings.	Wind.				Mean Amount of Evaporation (inches).	No. of Days Lightning.	Mean Amount of Clouds—9 a.m., 3 p.m. and 9 p.m.	No. of Clear Days.	
			Anemometer 56 feet above surface.			Prevailing Direction.					
			Mean Speed (miles per hour).	Highest Mean Speed in One Day (miles per hour).	Max. Gust Speed (miles per hour).						
		33	76	76	23	9 a.m.	3 p.m.	63	83	81	32
January ..	29.878	9.3	26.1	3/93	63	ENE	ENE	5.438	5.0	5.8	4.7
February ..	29.947	8.8	29.0	12/69	59	NE	ENE	4.333	4.2	5.9	5.4
March ..	30.008	7.7	31.4	20/70	58	W	ENE	3.714	4.0	5.5	5.0
April ..	30.073	7.3	26.7	6/82	64	W	ENE	2.687	3.6	—	7.0
May ..	30.097	7.2	28.4	6/98	57	W	NE	1.892	2.9	4.9	7.5
June ..	30.078	8.0	26.7	13/08	67	W	W	1.490	2.1	4.8	8.3
July ..	30.066	8.0	31.0	17/79	68	W	W	1.575	2.1	4.4	10.1
August ..	30.064	7.8	27.0	22/72	68	W	W & NE	2.047	3.0	4.0	11.1
September ..	30.019	8.4	32.1	6/74	70	W	NE	2.814	3.8	4.3	10.1
October ..	29.976	8.8	30.9	4/72	95	W	ENE	3.947	4.7	5.0	7.2
November ..	29.936	9.0	24.3	12/87	64	NE	ENE	4.728	5.3	5.6	5.6
December ..	29.881	9.2	31.3	3/84	75	E	ENE	5.500	5.7	5.7	4.8
Year { Totals ..	30.002	8.3	—	—	—	W	ENE	40.165	46.4	—	87.7
Year { Averages	—	—	—	—	—	—	—	—	—	5.1	—
Year { Extremes	—	—	32.1	6/9/74	95	—	—	—	—	—	—

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (Fahr.).			Extreme Shade Temperature (Fahr.).		Extreme Range.	Extreme Temperature (Fahr.).		Mean Hours of Sunshine.
	Mean Max.	Mean Min.	Mean	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of yrs. over which observations extend.	84	84	84	84	84	84	80	84	22
January ..	78.4	64.9	71.6	113.6 14/39	51.2 14/65	62.4	164.3 26/15	43.7 6/25	224.6
February ..	77.7	65.0	71.3	107.8 8/26	49.3 25/63	58.5	168.3 14/39	42.8 22/33	203.8
March ..	75.8	63.0	69.4	102.6 3/69	48.8 14/86	53.8	158.3 10/26	39.9 17/33	197.8
April ..	71.4	58.0	64.7	91.4 1/36	44.6 27/64	46.8	144.1 10/77	33.3 24/09	183.4
May ..	65.7	52.1	58.9	86.0 1/19	40.2 22/59	45.8	129.7 1/90	29.3 25/17	177.3
June ..	61.3	48.2	54.8	80.4 11/31	35.7 22/32	44.7	125.5 2/23	28.0 22/32	162.6
July ..	59.9	45.9	52.9	78.3 22/26	35.9 12/90	42.4	124.7 19/77	24.0 4/93	188.0
August ..	63.0	47.5	55.3	82.0 31/84	36.8 3/72	45.2	149.0 30/78	26.1 4/09	219.8
September ..	67.2	51.3	59.3	92.3 27/19	40.8 18/64	51.5	142.2 12/78	30.1 17/05	221.5
October ..	71.3	55.8	63.6	99.4 4/42	42.2 6/27	57.2	152.2 20/33	32.7 9/05	230.4
November ..	74.3	59.6	67.0	103.2 30/41	43.2 7/39	60.0	158.5 28/09	36.0 6/06	230.5
December ..	77.1	62.9	70.0	107.5 31/04	48.4 3/24	59.1	164.5 27/80	41.4 3/24	230.4
Year { Averages	70.3	56.2	63.2	—	—	—	—	—	2470.14
Year { Extremes	—	—	—	113.6 14/1/39	35.7 22/6/32	77.9	168.3 14/2/39	24.0 4/7/93	—

(a) Total for year.

HUMIDITY, RAINFALL AND FOG.

Month.	Vapour Pres- sure (inches).	Rel. Hum. (%) 9 a.m.			Rainfall (Inches).						Fog.		
		Mean 9 a.m.	Mean.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.		Mean No. of Days Fog.	
No. of yrs. over which observations extend.	67	67	67	67	84	84	84	84	84	22			
January	0.541	66	78	58	3.56	14	15.26	1911	0.25	1932	7.08	13/11	0.4
February	0.560	71	81	60	4.07	13	18.56	1873	0.12	1939	8.90	25/73	0.9
March	0.532	73	85	63	5.03	14	20.52	1942	0.42	1876	11.05	28/42	2.0
April	0.442	75	87	63	5.33	14	24.49	1861	0.06	1868	7.52	29/60	3.3
May	0.359	77	90	63	4.92	14	23.03	1919	0.18	1860	8.36	28/89	4.5
June	0.301	77	89	68	4.67	13	16.30	1885	0.19	1904	5.17	16/84	4.3
July	0.276	76	88	63	4.66	12	13.21	1900	0.12	1862	7.80	7/31	3.4
August	0.288	71	84	56	2.90	11	14.89	1899	0.04	1885	5.33	2/60	2.8
September .. .	0.330	65	79	49	2.82	12	14.04	1879	0.08	1882	5.69	10/79	0.9
October	0.383	63	77	42	2.87	12	11.74	1916	0.21	1867	6.37	13/02	0.7
November .. .	0.444	63	79	44	2.80	12	9.88	1865	0.07	1915	4.23	19/00	0.7
December .. .	0.503	64	77	52	2.96	13	15.82	1920	0.23	1913	4.75	13/10	0.4
Year { Totals	—	—	—	—	46.59	134	—	—	—	—	—	—	24.3
Year { Averages .. .	0.402	70	—	—	—	—	—	—	—	—	—	—	—
Year { Extremes .. .	—	—	90	42	—	—	24.49	4/1861	0.04	8/1885	11.05	28/3/42	—

CLIMATOLOGICAL DATA : HOBART, TASMANIA.

LAT. 42° 53' S., LONG. 147° 20' E. HEIGHT ABOVE M.S.L. 177 FT.

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS.

Month.	Bar. corrected to 32° F. Mm. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind.					Mean Amount of Evaporation (inches).	No. of Days Lightning.	Mean Amount of clouds, 9 a.m., 3 p.m. and 9 p.m.	No. of Clear Days.	
		Anemometer 40 feet above surface.			Prevailing Direction.						
		Mean Speed (miles per hour).	Highest Mean Speed in One Day (miles per hour).	Max. Gust Speed (miles per hour).							
No. of years observations.	58	32	32	58	37	37	32	35	80	36	
January ..	29.822	8.0	21	30/16	76	N to NW	SE	4.813	0.9	6.0	2.3
February ..	29.914	7.1	25	4/27	63	N to NW	SE	3.696	1.0	6.0	2.3
March ..	29.951	6.7	21	13/38	68	N to NW	SE	3.106	1.2	5.9	2.4
April ..	29.973	6.7	22	27/26	74	N to NW	SE & NW	1.999	0.7	6.2	1.7
May ..	29.997	6.4	20	20/36	70	N to NW	N to NW	1.382	0.4	6.1	2.3
June ..	29.968	6.2	24	27/20	61	NNW to NW	N to NW	0.907	0.4	6.1	2.3
July ..	29.940	6.5	21	19/35	78	NNW to NW	N to NW	0.945	0.4	5.9	2.2
August ..	29.915	6.8	26	19/26	67	N to NW	N to NW	1.279	0.4	6.0	2.1
September ..	29.850	8.0	22	26/15	84	N to NW	NW	1.973	0.6	6.1	1.5
October ..	29.835	8.1	19	8/12	74	N to NW	SE & NW	3.014	0.5	6.4	1.2
November ..	29.816	8.0	21	18/15	67	N to NW	SE	3.767	0.7	6.4	1.5
December ..	29.817	7.7	23	1/34	62	N to NW	SE	4.333	0.7	6.4	1.3
Year { Totals ..	29.900	7.2	—	—	—	N to NW	SE	31.214	7.9	—	23.1
Year { Averages	—	—	—	—	—	—	—	—	—	—	—
Year { Extremes	—	—	26	19/8/26	84	—	—	—	—	—	—

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (Fahr.).			Extreme Shade Temperature (Fahr.).		Extreme Range.	Extreme Temperature (Fahr.).		Mean Hours of Sunshine.
	Mean.	Min.	Max.	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
	72	72	72	74	74		53	75	
No. of yrs. over which observations extend.	72	72	72	74	74	74	53	75	22
January ..	71.0	52.7	61.9	105.0 (a)	40.1 (b)	64.9	160.0 (c)	30.6 19/98	239.5
February ..	71.1	53.2	62.1	104.4 12/99	39.0 20/87	65.4	165.0 24/98	28.3 —/87	199.6
March ..	67.9	50.9	59.4	98.8 5/46	35.2 31/26	63.6	150.0 3/05	27.5 30/02	198.3
April ..	62.6	47.7	55.1	84.0 17/29	33.3 24/88	50.7	142.0 18/93	25.0 —/86	147.6
May ..	57.5	43.9	50.7	77.8 5/21	29.2 20/02	48.6	128.0 (d)	20.0 19/02	141.1
June ..	52.8	41.0	46.9	69.2 1/07	29.3 12/13	39.9	122.0 12/94	21.0 6/87	119.2
July ..	52.1	39.6	45.9	66.1 14/34	27.7 11/95	38.4	121.0 12/93	18.7 16/86	131.7
August ..	55.1	41.1	48.1	71.6 28/14	30.2 6/46	41.4	129.0 —/87	20.1 7/09	158.0
September ..	58.8	43.2	51.0	81.7 23/26	30.0 12/41	51.7	138.0 23/93	18.3 16/26	174.4
October ..	62.6	45.5	54.0	92.0 24/14	32.0 12/89	60.0	156.0 9/93	23.8 (e)	194.7
November ..	65.9	48.3	57.1	93.8 26/37	35.2 5/13	63.1	154.0 19/92	26.1 1/08	218.6
December ..	69.0	51.1	60.0	105.2 30/97	38.0 13/06	67.2	161.5 10/39	27.2 —/86	222.3
Year { Averages	62.2	46.5	54.4	—	—	—	—	—	—
Year { Extremes	—	—	—	105.2	27.7	77.5	165.0	18.3	2145.0f
				30/12/97	11/7/95		24/2/98	16/9/26	—

(a) 27/49 and 1/00. (b) 9/37 and 11/37. (c) 5/86 and 13/05. (d) —/89 and —/93. (e) 1/86 and —/99. (f) Total for year.

HUMIDITY, RAINFALL AND FOG.

Month.	Vapour Pressure (inches).	Rel. Hum. (%) at 9 a.m.				Rainfall (inches).				Fog.
		Mean.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.	
		9 a.m.	Mean.	Mean.	Mean.	Mean.	Mean.	Mean.	Mean.	
No. of yrs. over which observations extend.	56	56	56	56	100	99	100	100	76	21
January ..	0.326	58	72	46	1.84	10	5.91 1893	0.03 1841	2.96 30/16	0.0
February ..	0.350	62	77	48	1.51	9	9.15 1854	0.07 1847	4.50 27/54a	0.0
March ..	0.328	66	77	52	1.76	10	7.60 1854	0.02 1843	3.27 11/32	0.3
April ..	0.299	72	84	58	1.93	12	8.50 1935	0.07 1904	5.02 20/09	0.2
May ..	0.269	77	89	65	1.83	13	6.37 1905	0.10 1843	3.22 14/58	0.6
June ..	0.238	79	91	68	2.21	14	8.15 1889	0.22 1852	4.11 13/89	0.6
July ..	0.228	80	94	72	2.13	14	6.02 1922	0.30 1850	2.51 18/22	1.1
August ..	0.237	75	92	61	1.85	14	10.16 1858	0.23 1854	4.35 12/58	0.4
September ..	0.249	67	85	58	2.07	16	7.14 1844	0.39 1847	2.75 18/44	0.0
October ..	0.269	63	73	51	2.29	15	6.67 1906	0.26 1850	2.58 4/06	0.0
November ..	0.292	59	72	50	2.41	14	8.94 1849	0.16 1868	3.97 7/49	0.0
December ..	0.316	58	67	45	2.13	12	9.00 1875	0.11 1842	3.33 5/41	0.0
Year { Totals ..	—	—	—	—	23.96	153	—	—	—	3.2
Year { Averages	0.280	67	—	—	—	—	—	—	—	—
Year { Extremes	—	—	94	45	—	—	10.16 8/1858	0.02 3/1843	5.02 20/4/09	—

(a) Also 4.18 inches on 28/54.

§ 3. Standard Times in Australia.

Prior to 1895 the official time adopted in the several colonies was for most purposes the mean solar time of the capital city of each.

In November, 1892, an intercolonial conference of surveyors was held in Melbourne to consider, among other things, the advantages of introducing the system of standard time. In this system it was proposed to make the initial meridian that of Greenwich, and to change local standard time by whole hours according to the longitude east or west of that of Greenwich. Thus for every difference of 15° in longitude a change of one hour would be required. The minutes and seconds would then be identical everywhere.

To give effect to this proposal it was suggested that Australia should be divided into three zones, the standard times for which should be respectively the mean solar times of the meridians of 120° , 135° and 150° E. longitude, thus giving standard times 8, 9 and 10 hours respectively ahead of Greenwich time. It was proposed that the 120° zone should comprise Western Australia, that the 135° zone should comprise South Australia and the Northern Territory, and that the 150° zone should comprise Queensland, New South Wales, Victoria and Tasmania.

The matter was also considered by several intercolonial postal conferences, and eventually in 1894 and 1895 legislation was enacted by each of the colonies in accord with the recommendations of the Surveyors' Conference of 1892.

In 1898 the South Australian legislature amended its earlier provision, and adopted the mean solar time of the meridian $142^\circ 30'$ E. longitude as the standard time for that colony, thus reducing the difference between the standard time of Adelaide and that of the capitals of the eastern colonies from an hour to half-an-hour. Particulars concerning these enactments are as follows:—

STANDARD TIMES IN AUSTRALIA.

State.	Date when Act came into Operation.	Meridian Selected.	Time Ahead of Greenwich. Hours.
New South Wales	1st February, 1895	150° E.	10
Victoria	1st February, 1895	150° E.	10
Queensland	1st January, 1895	150° E.	10
South Australia	1st February, 1895	135° E.	9
South Australia	1st May, 1899	$142^\circ 30'$ E.	$9\frac{1}{2}$
Western Australia	1st December, 1895	120° E.	8
Tasmania	1st September, 1895	150° E.	10

The standard time in the Australian Capital Territory is the same as in New South Wales, and in Northern Territory the same as in South Australia.

Consequent upon the opening of the Trans-Australian Railway an arrangement has been made by which the change of time between South Australia and Western Australia (namely, $1\frac{1}{2}$ hours) is divided into two changes of 45 minutes each. Going east from Kalgoorlie the first change is made at Rawlinna, 235.18 miles out, where the time is but forward by 45 minutes. The second change of the same amount is made at Tarcoola, 794.05 miles out. Thenceforward South Australian standard time is kept. The Commonwealth Observatory at Mount Stromlo, Canberra, and the State Observatories at Sydney, Adelaide, and Perth, derive time by astronomical observation. A Commonwealth Time Service is at present being developed.

CHAPTER III.

GENERAL GOVERNMENT.

§ 1. Scheme of Parliamentary Government.

1. **General.**—A brief account of the general legislative powers of the Commonwealth and States is given in preceding issues of the Official Year Book (see No. 13, pp. 927-951, and No. 22, p. 64).

2. **Powers and Functions of the Governor-General and of the State Governors.**—A detailed statement of the powers and functions of the Governor-General and of the State Governors appears in preceding issues of the Official Year Book (see No. 18, pp. 78-80).

3. **Governor-General and State Governors.**—The present Governor-General of the Commonwealth of Australia is His Royal Highness Prince Henry William Frederick Albert, Duke of Gloucester, Earl of Ulster and Baron Culloden, K.G., K.T., K.P., P.C., G.M.B., G.C.M.G., G.C.V.O., General in the Army, Air Chief Marshal in the Royal Air Force, One of His Majesty's Personal Aides-de-Camp.

His Royal Highness assumed office on 30th January, 1945, in succession to General, the Right Honorable Lord Gowrie, V.C., P.C., G.C.M.G., C.B., D.S.O., whose term of office expired on 5th September, 1944.

His Excellency Major-General Sir Winston Joseph Dugan, G.C.M.G., C.B., D.S.O., as Administrator of the Government of the Commonwealth of Australia, carried out the functions of the Governor-General from 5th September, 1944, to 30th January, 1945.

The following is a list of the Governors of the various States of Australia in office as at 30th April, 1946:—

New South Wales ..	Lieut.-Governor—The Hon. SIR FREDERICK RICHARD JORDAN, K.C.M.G.*
Victoria ..	.. Major-General SIR WINSTON JOSEPH DUGAN, G.C.M.G., C.B., D.S.O.
Queensland ..	.. Colonel the Rt. Hon. SIR LESLIE ORME WILSON, G.C.S.I., G.C.M.G., G.C.I.E., D.S.O.
South Australia ..	.. Lieut.-General SIR CHARLES WILLOUGHBY MOKE NORRIE, K.C.M.G., C.B., D.S.O., M.C.
Western Australia ..	.. Lieut.-Governor—The Hon. SIR JAMES MITCHELL, K.C.M.G.
Tasmania ..	.. Admiral SIR HUGH BINNEY, K.C.B., D.S.O.

4. **The Cabinet and Executive Government.**—(i) *General.* Both in the Commonwealth and in the States, executive government is based on the system which was evolved in Britain in the 18th century, and which is generally known as "Cabinet" or "responsible" government. Its essence is that the head of the State (His Majesty the King, and his representatives, Governor-General or Governor) should perform governmental acts on the advice of his Ministers; that he should choose his principal Ministers of State from members of Parliament belonging to the party, or coalition of parties, commanding a majority in the popular House; that the Ministry so chosen should be collectively responsible to that House for the government of the country; and that the Ministry should resign if it ceases to command a majority there.

The Cabinet system operates by means, chiefly, of constitutional conventions, customs or understandings, and of institutions that do not form part of the legal structure of the government at all. The constitutions of the Commonwealth and the States make fuller legal provision for the Cabinet system than the British Constitution does—for example, by requiring that Ministers shall be, or within a prescribed period become, members of the Legislature. In general, however, the legal structure of the executive government remains the same as it was before the establishment of the Cabinet system.

Formally, the executive power is vested in the Commonwealth in the Governor-General, and in the States in the Governor. In each case he is advised by an Executive Council, which however, meets only for certain formal purposes, as explained below.

* Lieut.-General John Northcott, C.B., M.V.O., Commander of the British Commonwealth Occupation Force in Japan, was appointed Governor in March, 1946, but had not taken up office at 30th April, 1946.

The whole policy of a Ministry is, in practice, determined by the Ministers of State, meeting, without the Governor-General or Governor, under the chairmanship of the Prime Minister or Premier. This group of Ministers is known as the Cabinet.

(ii) *The Cabinet.* This body does not form part of the legal mechanism of government. Its meetings are private and deliberative. The actual Ministers of the day are alone present, no records of the meetings are made public, and the decisions taken have, in themselves, no legal effect. In Australia, all Ministers are members of the Cabinet. As Ministers are the leaders of the party or parties commanding a majority in the popular House, the Cabinet substantially controls, in ordinary circumstances, not only the general legislative programme of Parliament, but the whole course of Parliamentary proceedings. In effect, though not in form, the Cabinet, by reason of the fact that all Ministers are members of the Executive Council, is also the dominant element in the executive government of the country. Even in summoning, proroguing or dissolving Parliament, the Governor-General or Governor is usually guided by the advice tendered him by the Cabinet, through the Prime Minister or Premier, though legally the discretion is vested in the Governor-General or Governor himself.

(iii) *The Executive Council.* This body is presided over by the Governor-General or Governor. Its members hold office during his pleasure. All Ministers of State are *ex officio* members of the Executive Council. In the Commonwealth, and also in the States of Victoria and Tasmania Ministers remain members of the Executive Council on leaving office, but are not summoned to attend its meetings; for it is an essential feature of the Cabinet system that attendance should be limited to the Ministers of the day. The meetings of the Executive Council are formal and official in character, and a record of proceedings is kept by the Secretary or Clerk. At Executive Council meetings, the decisions of the Cabinet are (where necessary) given legal form; appointments made; resignations accepted; proclamations issued, and regulations and the like enacted.

(iv) *The Appointment of Ministers.* Legally, Ministers hold office during the pleasure of the Governor-General or Governor. In practice, however, the discretion of the King's representative in the choice of Ministers is limited by the conventions on which the Cabinet system rests. Australian practice follows, broadly, that of the United Kingdom. When a Ministry resigns, the Crown's custom is to send for the leader of the party which commands, or is likely to be able to command, a majority in the popular House, and to commission him, as Prime Minister or Premier, to "form a Ministry"—that is, to nominate other persons to be appointed as Ministers of State and to serve as his colleagues in the Cabinet.

The customary procedure in connexion with the resignation or acceptance of office by a Ministry is described fully in previous issues of the Official Year Book (*see* No. 6, p. 942). It may be added, however, that subsequent legislation has, in most of the States, obviated the necessity of responsible Ministers vacating their seats in Parliament on appointment to office.

(v) *Ministers in Upper and Lower Houses.* The following table shows the number of Ministers with seats in the Upper or Lower Houses of each Parliament in June, 1945:—

AUSTRALIAN PARLIAMENTS : MINISTERS IN UPPER OR LOWER HOUSES, JUNE, 1945.

Ministers with Seats in—	C'wealth.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
The Upper House ..	5	2	4	(a)	2	2	1	16
The Lower House ..	14	13	8	10	4	7	8	64
Total ..	19	15	12	10	6	9	9	80

(a) Abolished in 1922.

(vi) *Ministers of State.* (a) *Commonwealth.* A statement showing the names of Ministers of State who have held office from the inauguration of the Commonwealth Government to 1925 will be found in Official Year Book No. 18, pp. 82 and 83. The names of the present Ministers will be found on page 69.

(b) *State Ministries.* A list of the members of the Ministry in each State in April, 1946, will be found in § 3 of this Chapter.

5. **Number and Salary of Members of the Legislatures.**—The following table shows the number and annual salary of members in each of the legislative chambers in June, 1945 :—

MEMBERS OF COMMONWEALTH AND STATE PARLIAMENTS, AND ANNUAL SALARIES, JUNE, 1945.

Members in—	C'wealth.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
NUMBER OF MEMBERS.								
Upper House ..	36	60	34	(a)	20	30	18	198
Lower House ..	75	90	65	62	39	50	30	411
Total ..	111	150	99	62	59	80	48	609
ANNUAL SALARY.								
Upper House ..	£ 1,000	£ ..	£ 350	£ (a)	£ 600	£ 600	£ (b) 370-500	..
Lower House ..	1,000	875	650	850	600	600	(b) 400-500	..

(a) Abolished in 1922.

(b) According to area of electorate and distance from the Capital.

The use of the expressions "Upper House" and "Lower House" in the statement above, though not justified constitutionally, is convenient, inasmuch as the legislative chambers are known by different names in the Commonwealth and in some of the States.

6. **Enactments of the Parliament.**—In the Commonwealth, all laws are enacted in the name of the Sovereign, the Senate, and the House of Representatives. The subjects with respect to which the Commonwealth Parliament is empowered to make laws are enumerated in the Constitution Act. In the States, laws are enacted in the name of the Sovereign by and with the consent of the Legislative Council (except in Queensland) and Legislative Assembly or House of Assembly. The Governor-General or the State Governor acts as Viceroy as regards giving the Royal Assent to or vetoing Bills passed by the Legislatures, or reserving them for the special consideration of the Sovereign. In the States, the Councils and Assemblies are empowered generally, subject to the Commonwealth Constitution, to make laws in and for their respective States, in all cases whatsoever. Subject to certain limitations, they may alter, repeal, or vary their Constitution. Where a law of a State is inconsistent with a law of the Commonwealth the latter prevails, and the former is, to the extent of the inconsistency, invalid.

§ 2. Parliaments and Elections.

1. **Qualifications for Membership and for Franchise.**—The conspectus in § 4 of "General Government" in Official Year Book No. 13 contains particulars, as in 1920, relating to the legislative chambers in the Commonwealth and State Parliaments, and shows concisely the qualifications necessary for membership and for the franchise in each House. (These are, in the main, applicable in 1945, but it must be remembered that Queensland abolished the Upper House in 1922.) It has further to be remembered that in 1925 the Commonwealth Parliament passed an Act removing the disqualification on racial grounds from (a) natives of British India and (b) persons who have become naturalized. Disqualification of persons otherwise eligible, either as members or voters, is generally on the usual grounds of being of unsound mind or attainted of treason, being convicted of certain offences, and, as regards membership, on the grounds of holding a place of profit under the Crown, being pecuniarily interested in a Government contract except as a member of an incorporated company of more than twenty-five persons, or being an undischarged bankrupt.

2. **The Commonwealth Government.**—The Senate consists of 36 members, six being returned by each of the original federating States. Members of this Chamber are elected for the term of six years, but by a provision in the Constitution half the members retire at the end of every third year, although they are eligible for re-election. In accordance with the Constitution, the total number of members of the House of Representatives must be as

nearly as possible double that of the Senate. In the House of Representatives the States are represented on a population basis, and the numbers in September, 1945, were as follows:—New South Wales, 28; Victoria, 20; Queensland, 10; South Australia, 6; Western Australia, 5; Tasmania, 5; Northern Territory, 1—total, 75. The member representing the Northern Territory may join in the debates but is not entitled to vote, except on a motion for the disallowance of any ordinance of the Territory or on any amendment of any such motion. The Constitution provides for a minimum of five members for each original State. Members of the House of Representatives are elected for the duration of the Parliament, which is limited to three years. In elections for Senators, the whole State constitutes the electorate. For the purpose of elections for the House of Representatives, the State is divided into single electorates corresponding in number with the number of members to which the State is entitled. In both Houses members are elected by universal adult suffrage. Further information regarding the Senate and the House of Representatives is given in earlier issues of the Official Year Book.

3. **Commonwealth Elections.**—There have been sixteen complete Parliaments since the inauguration of Federation. The fifth Parliament, which was opened on 9th July, 1913, was dissolved on 30th July, 1914, in somewhat unusual circumstances. Under Section 57 of the Constitution, it is provided that, should the Senate fail to pass, or pass with amendments, any proposed law previously passed by the House of Representatives, and should the latter House, after an interval of three months, again pass the proposed law, with or without the amendments of the Senate, and the Senate for a second time reject it or pass it with amendments to which the lower House will not agree, then the Governor-General may dissolve the two Houses simultaneously. For the first time in the history of the Commonwealth this deadlock between the Senate and the House of Representatives occurred in the second session of the fifth Parliament, and, in accordance with the section of the Constitution referred to above, both Houses were dissolved by the Governor-General. Until 1927 the Parliament met at Melbourne: it now meets at Canberra, the first meeting at Parliament House, Canberra, being opened by H.R.H. the Duke of York, on 9th May, 1927. The first session of the seventeenth Parliament opened on 23rd September, 1943. Particulars regarding Commonwealth elections since 1929 are shown in the following table:—

COMMONWEALTH ELECTIONS.

Date.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
THE SENATE.									
12.10.1929	1,773,014	1,769,936	3,542,950	(a)	(a)	(a)	..	..	..
19.12.1931	1,827,079	1,822,875	3,649,954	1,741,163	1,727,140	3,468,303	95.30	94.75	95.02
15.9.1934	1,954,339	1,948,338	3,902,677	1,862,749	1,845,829	3,708,578	95.31	94.74	95.03
23.10.1937	2,043,212	2,036,826	4,080,038	1,963,979	1,957,358	3,921,337	96.12	96.10	96.11
21.9.1940	2,113,169	2,126,177	4,239,346	1,989,381	2,027,422	4,016,803	94.14	95.36	94.75
21.8.1943	2,164,648	2,301,989	4,466,637	2,132,225b	2,169,430b	4,301,655b	98.50a	94.24b	96.32b

(a) No election.

(b) Includes members of Forces not enrolled.

THE HOUSE OF REPRESENTATIVES. (CONTESTED ELECTORATES.)

12.10.1929	1,557,525	1,560,505	3,118,030	1,479,100	1,478,447	2,957,547	94.95	94.74	94.85
19.12.1931	1,724,730	1,733,343	3,458,073	1,643,604	1,642,870	3,286,474	95.30	94.78	95.04
15.9.1934	1,930,418	1,934,021	3,864,439	1,843,949	1,833,774	3,677,723	95.52	94.82	95.17
23.10.1937	1,928,786	1,919,234	3,848,020	1,854,770	1,844,499	3,699,269	96.16	96.11	96.13
21.9.1940	2,087,003	2,109,443	4,196,446	1,966,744	2,012,265	3,979,009	94.24	95.39	94.82
21.8.1943	2,134,547	2,272,960	4,407,507	2,103,636a	2,141,733a	4,245,369a	98.55a	94.23a	96.32a

(a) Includes members of Forces not enrolled.

The percentage of electors who exercised the franchise at each election rose from 53.04 for the Senate and 55.69 for the House of Representatives in 1901 to 77.69 and 78.30 respectively in 1917. The next election in 1919 showed a considerable falling off,

and in 1922 the decrease was still more marked, the respective percentages for that year being 57.95 and 59.36, or very little more than those for 1901. Compulsory voting was introduced prior to the election in 1925, and an exceedingly heavy vote (over 91 per cent.) was cast in that year. This high percentage has been exceeded appreciably at subsequent elections, increasing in 1943 to 96.3 per cent. for both Houses.

For the first time two women were elected to the Commonwealth Parliament in 1943, one to the Senate and the other to the House of Representatives.

4. Commonwealth Referenda.—(i) *General.* According to Section 128 of the Constitution, any proposed law for the alteration of the Constitution must, in addition to being passed by an absolute majority of each House of Parliament, be submitted to a referendum of the electors in each State, and must further be approved by a majority of the States and of the electors who voted before it can be presented for Royal assent. So far nineteen proposals have been submitted to referenda and the consent of the electors has been received in three cases only, the first in relation to the election of Senators in 1906, and the other two in respect of State Debts—one in 1910 and the other in 1928. Details of the various referenda and the voting thereon were given in previous issues of the Official Year Book (*see* No. 18, p. 87, No. 31, p. 67 and No. 35, pp. 60 and 961).

(ii) *Post-war Reconstruction and Democratic Rights Referendum, 1944.* A Convention of representatives of Commonwealth and States Parliaments to consider the reference of powers by the States to the Commonwealth met at Canberra from 24th November to 2nd December, 1942 and adopted a resolution that adequate powers to make laws in relation to post-war reconstruction should be referred by the States to the Commonwealth for a period ending at the expiration of five years after the war, and finally approved of a draft bill (*see* page 62 of the Official Year Book No. 35 for full text) which was passed in the agreed form in only two States *viz.* :—New South Wales and Queensland. The Victorian Parliament passed the bill in practically the agreed form but attached a condition to it suspending its operation until all the other States had passed identical measures. The Parliaments of South Australia and Western Australia passed the bill but vital amendments were made to the agreed list of powers. In Tasmania, despite repeated requests by the Government, the Legislative Council refused to pass the bill.

Following this failure to obtain the approval of all State Parliaments to the draft Bill agreed to at the Canberra Convention the Commonwealth Government decided to submit the question of transfer of powers to a Referendum in accordance with section 128 of the Commonwealth Constitution (*see supra*, p. 25) and the bill for this purpose, passed by an absolute majority of the members of both Houses of Parliament, was in substance similar to that agreed to at the Convention but contained also certain declarations regarding freedom of speech and expression and freedom of religion. It also contained a provision requiring notice of regulations of a legislative character made under the proposed powers being given to each senator and each member of the House of Representatives. The bill—the full text of which may be found on pages 64 to 66 of Official Year Book No. 35—was submitted to the people at a Referendum on 19th August, 1944, and only two States—South Australia and Western Australia—were in favour of the proposed alteration. The voting in each State was as follows :—

State.	Yes.	No.	Informal.	Total.	Percentage of Formal Votes.	
					Yes.	No.
New South Wales ..	759,211	911,680	23,228	1,694,119	45.44	54.56
Victoria ..	597,848	614,487	15,236	1,227,571	49.31	50.69
Queensland ..	216,262	375,862	7,444	599,568	36.52	63.48
South Australia ..	196,294	191,317	4,832	392,443	50.64	49.36
Western Australia ..	140,399	128,303	3,637	272,339	52.25	47.75
Tasmania ..	53,386	83,769	2,256	139,411	38.92	61.08
Total ..	1,963,400	2,305,418	56,633	4,325,451	45.99	54.01

5. **The Parliament of New South Wales.**—(i) *Constitution.* The Parliament of New South Wales consists of two Chambers, the Legislative Assembly and the Legislative Council. The Assembly consists of ninety members, elected in single-seat electoral districts, who hold their seats during the existence of the Parliament to which they are elected. The duration of Parliament is limited to three years. Until 1934 the Council was a nominee Chamber, consisting of a variable number of members appointed for life without remuneration, but as from 23rd April, 1934, it was reconstituted and became a House of sixty members to serve without remuneration for a term of twelve years, with one-quarter of the members retiring every third year. The electorate comprises members of both Chambers, who vote as a single electoral body at simultaneous sittings of both Chambers. At the first elections in 1933, four groups of fifteen members were elected to serve respectively twelve years, nine years, six years, and three years. Any person resident for at least three years in Australia and entitled to vote at the election of members of the Legislative Assembly is eligible for election as a member of the Council, if nominated by two electors, an elector being a member of either of the two Houses for the time being.

(ii) *Particulars of Elections.* Since the introduction of responsible government in New South Wales there have been thirty-three complete Parliaments, the first of which opened on 22nd May, 1856, and was dissolved on 19th December, 1857, while the thirty-third was dissolved on 13th April, 1944. The thirty-fourth Parliament opened on 22nd June, 1944. The elections of 1920, 1922 and 1925 were contested on the principle of proportional representation, but a reversion to the system of single seats and preferential voting was made at the later appeals to the people. Particulars of voting at elections from 1930 to 1944 are given below:—

NEW SOUTH WALES LEGISLATIVE ASSEMBLY ELECTIONS.

Year.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted in Contested Electorates.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1930	724,471	716,314	1,440,785	682,747	673,676	1,356,423	95.09	94.79	94.94
1932	739,009	725,999	1,465,008	690,094	676,993	1,367,087	96.42	96.37	96.39
1935	769,220	759,493	1,528,713	654,383	640,369	1,294,752	96.09	95.60	95.85
1938	803,517	804,316	1,607,833	608,727	606,767	1,215,494	96.15	95.41	95.78
1941	834,752	850,029	1,684,781	698,100	727,652	1,425,752	90.99	94.03	92.52
1944a	833,300	899,406	1,732,706	610,904	699,368	1,310,272	81.62	92.85	87.47

(a) Service and Section votes omitted in percentage calculations.

The principle of one elector one vote was adopted in 1894, and that of compulsory enrolment in 1921. Compulsory voting was introduced at the 1930 election and the percentage of electors who voted in contested electorates rose from 82.54 in 1927 to over 96 in 1932, but declined to 87 in 1944.

The franchise was extended to women (Women's Franchise Act) in 1902, and was exercised by them for the first time in 1904.

6. **The Parliament of Victoria.**—(i) *Constitution.* Both of the Victorian legislative Chambers are elective bodies, but there is a considerable difference in the number of members of each House, as well as in the qualifications necessary for members and electors. The number of members in the Upper House is thirty-four, and in the Lower House, sixty-five. In the Legislative Council the tenure of the seat is for six years, but one member for each of the seventeen provinces retires every third year. Members of the Legislative Assembly are elected for the duration of Parliament, which is limited

to three years. Single voting is observed in elections held for either House, plurality of voting having been abolished for the Legislative Assembly in 1899 and for the Legislative Council in 1937; for the latter House, however, it is still possible for an elector to be enrolled for more than one province, and such elector may select the province for which he desires to record his vote. A preferential system of voting (see Official Year Book No. 6, p. 1182) was adopted for the first time in Victoria at the election held in November, 1911. Compulsory voting was first observed at the 1927 elections for the Legislative Assembly, and at the 1937 elections for the Legislative Council.

(ii) *Particulars of Elections.* Since the introduction of responsible government in Victoria there have been thirty-five complete Parliaments, the first of which opened on 21st November, 1856, and closed on 9th August, 1859, while the thirty-fifth was dissolved on 3rd October, 1945. The thirty-sixth Parliament was opened on 28th November, 1945. Particulars of voting at elections during the years 1928 to 1945 are given in the following table:—

VICTORIAN ELECTIONS.

LEGISLATIVE COUNCIL.

Year.	Electors Enrolled.		Electors Enrolled in Contested Electorates.	Electors who Voted.	Percentage of Electors who Voted in Contested Electorates.
1928	444,278	268,164	85.372
1931	470,349	239,975	93.244
1934	469,395	160,980	47.375
1937	447,694	265,194	208.925
1940	471,843	235,784	178.666
1943	465,637	117,584	83.568
					71.07

LEGISLATIVE ASSEMBLY.

Year.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted in Contested Electorates.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1929	496,996	532,174	1,029,170	308,532	330,836	639,368	94.11	93.36	93.72
1932	510,809	544,492	1,055,301	335,512	351,530	687,042	94.60	93.82	94.20
1935	532,619	566,632	1,099,251	415,081	438,389	853,470	95.00	93.82	94.39
1937	550,618	585,978	1,136,596	383,507	413,923	797,430	94.22	93.72	93.96
1940	565,002	597,965	1,162,967	377,644	408,715	786,359	93.65	93.19	93.41
1943	596,595	665,035	1,261,630	392,160	491,519	883,679	81.87	91.57	87.00
1945	594,761	682,188	1,276,949	408,665	487,883	896,548	85.75	89.93	87.98

The franchise was extended to women by the Adult Suffrage Act 1908, while voting at elections was made compulsory for the Legislative Assembly in 1926 and for the Legislative Council in 1935.

7. *The Parliament of Queensland.*—(i) *Constitution.* As stated previously the Legislative Council in Queensland was abolished in 1922, the date of Royal Assent to the Act being 23rd March, 1922. The Legislative Assembly is composed of sixty-two members, and the State is divided into that number of electoral districts. The Electoral Districts Act of 1931, assented to on 1st October, 1931, provided that from and after the end of the twenty-fifth Parliament (dissolved on 19th April, 1932) the number of

members and electoral districts should be reduced from seventy-two to sixty-two. A system of optional preferential voting is in operation. (See Official Year Book No. 6, p. 1183.)

(ii) *Particulars of Elections.* Since the establishment of responsible government in Queensland there have been twenty-nine complete Parliaments, the last of which was dissolved on 23rd February, 1944. Opinions differ regarding the opening date of the first Queensland Parliament. According to the Votes and Proceedings of the Legislative Assembly the House met for the first time on 22nd May, 1860, when the members were sworn and the Speaker elected. The Governor, however, was unable to be present on that date, but he duly attended on 29th May, 1860, and delivered the Opening Address.

At the elections held in May, 1915, the principle of compulsory voting was introduced for the first time in Australia. Of the number of electors enrolled at the 1944 elections, 87.55 per cent. went to the polls. Statistics regarding elections during the years 1929 to 1944 are given below :—

QUEENSLAND LEGISLATIVE ASSEMBLY ELECTIONS.

Year.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted in Contested Electorates.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1929	270,327	239,672	509,999	228,601	209,647	438,248	89.69	91.45	90.52
1932	274,986	250,958	525,944	236,266	220,628	456,894	92.59	93.14	92.86
1935	303,018	272,270	575,288	245,331	225,427	470,758	92.55	92.89	92.71
1938	318,402	288,157	606,559	280,841	258,196	539,037	92.09	92.97	92.51
1941	331,285	303,631	634,916	269,849	259,398	529,247	88.68	92.03	90.29
1944	329,028	326,956	655,984	251,119	261,662	512,781	85.62	89.48	87.55

The election of 1907 was the first State election in Queensland at which women voted, the right being conferred under the Elections Acts Amendment Act 1905.

8. *The Parliament of South Australia.*—(i) *Constitution.* In this State there is a Legislative Council composed of twenty members and a House of Assembly with thirty-nine members, both Chambers being elective. For the Legislative Council the State is divided into five districts each returning four members two of whom retire alternately. Thirty-nine districts return one member each to the House of Assembly; prior to 1938 there were forty-six members representing nineteen districts. A system of preferential voting is in operation.

(ii) *Particulars of Elections.* Since the inauguration of responsible government in South Australia there have been thirty complete Parliaments, the first of which was opened on 22nd April, 1857. The thirtieth Parliament was opened on 3rd July, 1941, and was dissolved on 28th February, 1944. The thirty-first Parliament was opened on 20th July, 1944. The duration of the twenty-eighth Parliament was extended from three to five years by the provisions of the Constitution (Quinquennial Parliament)

Act 1933, but this Act was repealed by the Constitution Act Amendment Act (No. 2) 1939, and the three-year term was reverted to. Particulars of voting at the last six elections are given below:—

SOUTH AUSTRALIAN ELECTIONS.

Year.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted in Contested Electorates.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1927	100,376	37,395	137,771	46,686	17,742	64,428	67.55	59.91	65.26
1930	(a)	(a)	133,274	(a)	(a)	100,040	(a)	(a)	75.06
1933	(a)	(a)	133,152	(a)	(a)	25,309	(a)	(a)	64.21
1938	92,109	37,026	129,135	67,691	23,474	91,165	73.49	63.40	70.60
1941	(a)	(a)	115,952	(a)	(a)	70,660	(a)	(a)	60.94
1944	(a)	(a)	142,314	(a)	(a)	81,791	(a)	(a)	83.05

(a) Not available.

HOUSE OF ASSEMBLY.

1927	152,997	156,591	309,588	110,127	104,611	214,738	80.64	74.31	77.43
1930	(a)	(a)	325,244	(a)	(a)	222,819	(a)	(a)	71.36
1933	(a)	(a)	338,576	(a)	(a)	182,693	(a)	(a)	59.45
1938	(a)	(a)	364,884	(a)	(a)	223,136	(a)	(a)	63.31
1941	(a)	(a)	378,265	(a)	(a)	171,978	(a)	(a)	50.69
1944	(a)	(a)	401,747	(a)	(a)	255,883	(a)	(a)	88.53

(a) Not available.

South Australia was the first of the States to grant women's suffrage (under the Constitution Amendment Act 1894), the franchise being exercised by women for the first time at the Legislative Assembly election on 25th April, 1896. Compulsory voting for the House of Assembly, provided for by the Electoral Act Amendment Act 1942, was first observed at the 1944 election.

9. **The Parliament of Western Australia.**—(i) *Constitution.* In this State both Chambers are elective. For the Legislative Council there are thirty members, each of the ten provinces returning three members, one of whom retires biennially. At each biennial election the member elected holds office for a term of six years, and automatically retires at the end of that period. The Legislative Assembly is composed of fifty members, one member being returned by each electoral district. Members of the Legislative Assembly are elected for three years.

(ii) *Particulars of Elections.* Since the establishment of responsible government in Western Australia there have been seventeen complete Parliaments, the first of which was opened on 30th December, 1890. The seventeenth Parliament was opened on 3rd August, 1939, and was dissolved on 8th October, 1943. The eighteenth Parliament was opened on 27th July, 1944. The preferential system of voting in use in Western Australia is described in Official Year Book No. 6, p. 1184. Elections for membership of both Houses which were due to be held early in 1942, were postponed by the Legislative Council

Postponement of Elections Act 1942 and the Legislative Assembly Duration and General Elections Postponement Act 1941. Particulars of voting at the last six elections for each Chamber are given in the tables following :—

WESTERN AUSTRALIAN ELECTIONS.

Year.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted in Contested Electorates.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
LEGISLATIVE COUNCIL.									
1932	57,454	19,889	77,343	17,145	5,508	22,653	56.29	48.29	54.16
1934	62,168	22,323	84,491	31,590	10,189	41,779	53.39	47.23	51.75
1936	63,407	21,987	85,394	18,479	6,394	24,873	45.03	40.03	43.62
1938	62,992	23,411	86,411	19,132	6,971	26,103	52.64	45.57	50.54
1940	62,745	23,598	86,343	24,904	8,013	32,917	41.96	35.29	40.11
1944	56,021	23,868	79,889	17,609	5,454	23,063	51.01	45.47	49.58

LEGISLATIVE ASSEMBLY.

1927	113,072	97,877	210,949	76,307	66,199	142,506	74.32	72.42	73.42
1930	122,576	107,500	230,076	75,206	63,807	139,013	75.44	73.30	74.44
1933	124,776	112,419	237,195	96,210	89,802	186,012	90.23	91.00	90.60
1936	130,065	117,400	247,465	71,734	64,575	136,309	71.95	68.22	70.13
1939	138,240	127,747	265,987	104,228	101,510	205,738	89.01	91.07	90.01
1943	137,100	137,756	274,856	(a)	(a)	118,378	(a)	(a)	86.53

(a) Not available.

(b) Includes members of Forces not enrolled.

Women's suffrage was granted by the Electoral Act of 1899. The first woman member to be elected to an Australian Parliament was returned at the 1921 election in this State. Voting for the Legislative Assembly was made compulsory in December, 1936, the first elections for which the provision was in force being those held on 18th March, 1939 when the percentage of electors who voted in contested electorates rose from 70.13 to 90.01. The high percentage of 90.60 in 1933 was due to the fact that the Secession Referendum, in respect of which voting was compulsory, was taken on the Legislative Assembly election day.

(iii) *Secession Referendum.* On 8th April, 1933, the people of Western Australia voted overwhelmingly in favour of the State withdrawing from the Federal Commonwealth, the voting being :—In favour, 138,653; not in favour, 70,706.

10. **The Parliament of Tasmania.**—(i) *Constitution.* In Tasmania there are two legislative Chambers—the Legislative Council and the House of Assembly, both bodies being elective. The Council consists of eighteen members, elected for six years and returned from fifteen districts, Hobart returning three, Launceston two, and the remaining thirteen districts, one member each. Three members retire annually, and the Council cannot be dissolved as a whole. There are five House of Assembly districts, corresponding to the Commonwealth electoral divisions, each returning six members elected under a system of proportional representation which first came into force at the 1909 elections (see Official Year Book No. 6, p. 1185). The life of the Assembly was extended from three to five years by the Constitution Act 1936.

In 1924 and again in 1925 the House of Assembly contested, with at least temporary success, the power of the Legislative Council to amend money bills. The matter was settled by the Constitution Act 1926, which provides that all money bills shall originate in the Assembly, that all money votes shall be recommended by the Governor, and that the Council may amend bills other than those for appropriating public moneys or fixing a rate for income or land tax. The Council has no power to insert a provision for the appropriation of money or to impose or increase any burden on the people.

(ii) *Particulars of Elections.* The first Tasmanian Parliament opened on 2nd December, 1856, and closed on 8th May, 1861. There have been twenty-six complete Parliaments since the inauguration of responsible government. Particulars of the voting at the last six elections for the House of Assembly are given hereunder :—

TASMANIAN HOUSE OF ASSEMBLY ELECTIONS.

Year.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted in Contested Electorates.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1925	56,667	58,234	114,901	41,322	35,959	77,281	72.92	61.81	67.25
1928	55,058	56,898	111,956	46,769	44,910	91,679	84.94	78.94	81.90
1931	59,024	59,706	118,730	56,674	56,105	112,779	96.02	93.97	94.99
1934	63,841	63,840	127,681	60,623	59,999	120,622	94.96	93.98	94.47
1937	66,223	65,778	132,001	62,880	61,580	124,460	94.95	93.62	94.29
1941	69,058	70,176	139,234	61,480	65,554	127,034	89.03	93.41	91.24

The present members of the Legislative Council have been elected at various dates and the following particulars are given of the last contested elections in two division in 1944 :—Number of electors on the roll, 8,940 ; number of votes recorded, 7,365 percentage of enrolled electors who voted, 82.38.

The suffrage was granted to women under the Constitution Amendment Act 1903 and compulsory voting came into force on the passing of the Electoral Act in 1928.

§ 3. Administration and Legislation.

1. *The Commonwealth Parliaments.*—The first Parliament of the Commonwealth was convened by proclamation dated 29th April, 1901, by his Excellency the late Marquis of Linlithgow, then Earl of Hopetoun, Governor-General. It was opened on 9th May, 1901, by H.R.H. the Duke of Cornwall and York, who had been sent to Australia for that purpose by His Majesty the King, the Rt. Hon. Sir Edmund Barton, G.C.M.G., K.O., being Prime Minister.

The following table gives the number and duration of Parliaments since Federation :—

COMMONWEALTH PARLIAMENTS.

Number of Parliament.			Date of Opening.	Date of Dissolution.
First	..	..	9th May, 1901	23rd November, 1903
Second	..	..	2nd March, 1904	5th November, 1906
Third	..	..	20th February, 1907	19th February, 1910
Fourth	..	..	1st July, 1910	23rd April, 1913
Fifth	..	..	9th July, 1913	30th July, 1914(a)
Sixth	..	..	8th October, 1914	26th March, 1917
Seventh	..	..	14th June, 1917	3rd November, 1919
Eighth	..	..	26th February, 1920	6th November, 1922
Ninth	..	..	28th February, 1923	3rd October, 1925
Tenth	..	..	13th January, 1926	9th October, 1928
Eleventh	..	..	9th February, 1929	16th September, 1929
Twelfth	..	..	20th November, 1929	27th November, 1931
Thirteenth	..	..	17th February, 1932	7th August, 1934
Fourteenth	..	..	23rd October, 1934	21st September, 1937
Fifteenth	..	..	30th November, 1937	27th August, 1940
Sixteenth	..	..	20th November, 1940	7th July, 1943
Seventeenth	..	..	23rd September, 1943	

(a) On this occasion, the Governor-General, acting on the advice of the Ministry, and under Section 57 of the Constitution, granted a dissolution of both the Senate and the House of Representatives, this being the only occasion on which a dissolution of both Houses has occurred.

2. **Governors-General and Ministries.**—The following statements show the names of the several Governors-General, and the Ministries which have directed the administration of the affairs of the Commonwealth since its inception :—

(a) **GOVERNORS-GENERAL.**

- Rt. Hon. EARL OF HOPETOUN (afterwards MARQUIS OF LINLITHGOW), K.T., G.C.M.G., G.C.V.O. From 1st January 1901, to 9th January, 1903.
- Rt. Hon. HALLAM, BARON TENNYSON, G.C.M.G. From 17th July, 1902, to 9th January, 1903. (Acting).
- Rt. Hon. HALLAM, BARON TENNYSON, G.C.M.G. From 9th January, 1903, to 21st January, 1904.
- Rt. Hon. HENRY STAFFORD, BARON NORTHCOTE, G.C.M.G., G.C.I.E., C.B. From 21st January, 1904, to 9th September, 1908.
- Rt. Hon. WILLIAM HUMBLE, EARL OF DUDLEY, G.C.B., G.C.M.G., G.C.V.O., &c. From 9th September, 1908, to 31st July, 1911.
- Rt. Hon. THOMAS, BARON DENMAN, G.C.M.G., K.C.V.O. From 31st July, 1911, to 18th May, 1914.
- Rt. Hon. SIR RONALD CRAUFORD MUNRO FERGUSON (afterwards VISCOUNT NOVAR OF RAITH), G.C.M.G. From 18th May, 1914, to 6th October, 1920.
- Rt. Hon. HENRY WILLIAM, BARON FORSTER OF LEPRE, G.C.M.G. From 6th October, 1920, to 8th October, 1925.
- Rt. Hon. JOHN LAWRENCE, BARON STONEHAVEN, G.C.M.G., D.S.O. From 8th October, 1925, to 22nd January, 1931.
- Lieut.-Colonel the Rt. Hon. ARTHUR HERBERT TENNYSON, BARON SOMERS, K.C.M.G., D.S.O., M.C. From 3rd October, 1930, to 22nd January, 1931 (Acting).
- Rt. Hon. SIR ISAAC ALFRED ISAACS, G.C.M.G. From 22nd January, 1931, to 23rd January, 1936.
- General the Rt. Hon. ALEXANDER GORE ARKWRIGHT, BARON GOWRIE, V.C., P.C., G.C.M.G., C.B., D.S.O. From 23rd January, 1936, to 30th January, 1945.
- Major-General Sir WINSTON JOSEPH DUGAN, G.C.M.G., C.B., D.S.O. From 5th September, 1944 to 30th January, 1945 (Acting).
- His Royal Highness PRINCE HENRY WILLIAM FREDERICK ALBERT, DUKE OF GLOUCESTER, EARL OF ULSTER AND BARON CULLODEN, K.G., K.T., K.P., P.C., G.M.B., G.C.M.G., G.C.V.O. General in the Army, Air Chief Marshal in the Royal Air Force, One of His Majesty's Personal Aides-de-Camp. From 30th January, 1945.

(b) **MINISTRIES.**

- (i) BARTON MINISTRY, 1st January, 1901, to 24th September, 1903.
- (ii) DEAKIN MINISTRY, 24th September, 1903, to 27th April, 1904.
- (iii) WATSON MINISTRY, 27th April, to 17th August, 1904.
- (iv) REID-McLEAN MINISTRY, 18th August, 1904, to 5th July, 1905.
- (v) DEAKIN MINISTRY, 5th July, 1905, to 13th November, 1908.
- (vi) FISHER MINISTRY, 13th November, 1908, to 1st June, 1909.
- (vii) DEAKIN MINISTRY, 2nd June, 1909, to 29th April, 1910.
- (viii) FISHER MINISTRY, 29th April, 1910, to 24th June, 1913.
- (ix) COOK MINISTRY, 24th June, 1913, to 17th September, 1914.
- (x) FISHER MINISTRY, 17th September, 1914, to 27th October, 1915.
- (xi) HUGHES MINISTRY, 27th October 1915, to 14th November, 1916.
- (xii) HUGHES MINISTRY, 14th November, 1916, to 17th February, 1917.
- (xiii) HUGHES MINISTRY, 17th February, 1917, to 10th January, 1918.
- (xiv) HUGHES MINISTRY, 10th January, 1918, to 9th February, 1923.
- (xv) BRUCE-PAGE MINISTRY, 9th February, 1923, to 22nd October, 1929.
- (xvi) SCULLIN MINISTRY, 22nd October, 1929, to 6th January, 1932.
- (xvii) LYONS MINISTRY, 6th January, 1932, to 7th November, 1938.
- (xviii) LYONS MINISTRY, 7th November, 1938, to 7th April, 1939.
- (xix) PAGE MINISTRY, 7th April, 1939, to 26th April, 1939.
- (xx) MENZIES MINISTRY, 26th April, 1939, to 14th March, 1940.
- (xxi) MENZIES MINISTRY, 14th March, 1940, to 29th August, 1941.
- (xxii) FADDEN MINISTRY, 29th August, 1941, to 7th October, 1941.
- (xxiii) CURTIN MINISTRY, 7th October, 1941, to 21st September, 1943.
- (xxiv) CURTIN MINISTRY, 21st September, 1943, to 6th July, 1945.
- (xxv) FORDE MINISTRY, 6th July, 1945, to 13th July, 1945.
- (xxvi) CHIFLEY MINISTRY, 13th July, 1945.

(c) CHIFLEY GOVERNMENT (sworn in 13th July, 1945), as at 30th April, 1946.

(The State from which each Minister was elected to Parliament is added in brackets.)

DEPARTMENTS.	MINISTERS.
<i>Prime Minister and Treasurer</i>	RT. HON. J. B. CHIFLEY (N.S.W.).
<i>Minister for the Army (and Deputy Prime Minister)</i>	RT. HON. F. M. FORDE (Qld.).
<i>Attorney-General and Minister for External Affairs</i>	RT. HON. H. V. EVATT, LL.D., D.Litt., K.C. (N.S.W.).
<i>Minister for Defence</i>	RT. HON. J. A. BEASLEY (N.S.W.).
<i>Minister for the Navy, Minister for Munitions and Minister for Aircraft Production</i>	HON. N. J. O. MAKIN (S.A.).
<i>Minister for Labour and National Service</i> ..	HON. E. J. HOLLOWAY (Vic.).
<i>Minister for Air and Minister for Civil Aviation</i>	HON. A. S. DRAKEFORD (Vic.).
<i>Minister for Commerce and Agriculture</i> ..	HON. W. J. SCULLY (N.S.W.).
<i>Minister for Supply and Shipping</i>	SENATOR THE HON. W. P. ASHLEY (N.S.W.).
<i>Minister for Trade and Customs*, Minister for Post-war Reconstruction and Minister in Charge of the Council for Scientific and Industrial Research</i>	HON. J. J. DEDMAN (Vic.).
<i>Vice-President of the Executive Council</i> ..	SENATOR THE HON. J. S. COLLINGS (Qld.).
<i>Minister for Transport and Minister for External Territories</i>	HON. E. J. WARD (N.S.W.).
<i>Minister for Health and Minister for Social Services</i>	SENATOR THE HON. J. M. FRASER (W.A.).
<i>Minister for Repatriation</i>	HON. C. W. FROST (Tas.).
<i>Minister for Works and Housing</i>	HON. H. P. LAZZARINI (N.S.W.).
<i>Postmaster-General</i>	SENATOR THE HON. D. CAMERON (Vic.).
<i>Minister for Immigration and Minister for Information</i>	HON. A. A. CALWELL (Vic.).
<i>Minister for the Interior and Minister assisting the Minister for Works and Housing</i>	HON. H. V. JOHNSON (W.A.).

3. **State Ministries.**—The names of the members of the Ministries in each State in April, 1946, are shown in the following statement. The date on which each Ministry was sworn in is stated in parenthesis :—

STATE MINISTERS, 1945.

NEW SOUTH WALES (8th June, 1944).

<i>Premier and Colonial Treasurer—</i> THE HON. W. J. MCKELL, K.C.	<i>Secretary for Public Works and Minister for Local Government—</i> THE HON. J. J. CAHILL.
<i>Deputy Premier, Colonial Secretary, Minister for Mines and Minister for National Emergency Services—</i> THE HON. J. M. BADDELEY.	<i>Minister for Health—</i> THE HON. C. A. KELLY.
<i>Minister for Education—</i> THE HON. R. J. HEFFRON.	<i>Minister for Housing—</i> THE HON. J. MCGIRR.
<i>Attorney-General—</i> THE HON. C. E. MARTIN.	<i>Secretary for Lands—</i> THE HON. J. M. TULLY.
<i>Minister for Conservation—</i> THE HON. W. F. DUNN.	<i>Minister for Transport—</i> THE HON. M. O'SULLIVAN.
<i>Minister for Labour and Industry and Minister for Social Welfare—</i> THE HON. HAMILTON KNIGHT.	<i>Minister for Agriculture—</i> THE HON. E. H. GRAHAM.
<i>Minister of Justice and Vice-President of the Executive Council—</i> THE HON. R. R. DOWNING, M.L.C.	<i>Assistant Ministers—</i> THE HON. C. R. EVATT, K.C. THE HON. W. E. DICKSON, M.L.C. THE HON. G. WEIR.

* Following upon the death of Senator the Hon. R. V. Keane in Washington, U.S.A., on 26th April 1946, the Hon. J. J. Dedman, Minister for Post-war Reconstruction was appointed on 20th April, 1946, to hold also the office of Minister for Trade and Customs.

STATE MINISTERS—*continued*.

VICTORIA (21st November, 1945).

<i>Premier and Treasurer—</i> THE HON. J. CAIN.	<i>President of the Board of Land and Works, Commissioner of Crown Lands and Survey and Minister of Water Supply—</i> THE HON. L. W. GALVIN.
<i>Minister of Public Instruction—</i> THE HON. F. FIELD.	<i>Minister of Labour and Minister of Employ- ment—</i> THE HON. P. J. CLAREY, M.L.C.
<i>Chief Secretary, Attorney-General and Solicitor-General—</i> THE HON. W. SLATER.	<i>Commissioner of Public Works, Minister in Charge of Electrical Undertakings, and a Vice-President of the Board of Land and Works—</i> THE HON. P. J. KENNELLY, M.L.C.
<i>Minister of Agriculture, Minister of Mines and a Vice-President of the Board of Land and Works—</i> THE HON. W. G. MCKENZIE.	<i>Ministers without Portfolios—</i> THE HON. T. HAYES. THE HON. A. M. FRASER, M.L.C. THE HON. P. L. COLEMAN, M.L.C.
<i>Minister of Health, Minister of Housing and Minister of Forests—</i> THE HON. W. P. BARRY.	
<i>Minister of Transport, Minister of State Development and Decentralization and a Vice-President of the Board of Land and Works—</i> THE HON. C. P. STONEHAM.	

QUEENSLAND (7th March, 1946).

<i>Premier and Chief Secretary; and Vice- President of the Executive Council—</i> THE HON. E. M. HANLON.	<i>Attorney-General—</i> THE HON. D. A. GLEDSON.
<i>Treasurer—</i> THE HON. J. LARCOMBE.	<i>Secretary for Public Instruction—</i> THE HON. T. L. WILLIAMS.
<i>Secretary for Health and Home Affairs—</i> THE HON. T. A. FOLEY.	<i>Minister for Transport—</i> THE HON. E. J. WALSH.
<i>Secretary for Public Works—</i> THE HON. H. A. BRUCE.	<i>Secretary for Labour and Employment and Secretary for Mines—</i> THE HON. V. C. GAIR.
<i>Secretary for Public Lands—</i> THE HON. A. JONES.	<i>Secretary for Agriculture and Stock—</i> THE HON. H. H. COLLINS.

SOUTH AUSTRALIA (15th May, 1944).

<i>Premier, Treasurer, and Minister of Immigration—</i> THE HON. T. PLAYFORD.	<i>Minister of Lands, Minister of Repatriation, and Minister of Irrigation—</i> THE HON. R. J. RUDALL, M.L.C.
<i>Chief Secretary, Minister of Health, and Minister of Mines—</i> THE HON. A. L. McEWIN, M.L.C.	<i>Minister of Works, Minister of Railways, Minister of Marine, and Minister of Local Government—</i> THE HON. M. McINTOSH.
<i>Attorney-General, Minister of Education, and Minister of Industry and Employment—</i> THE HON. C. LEMPRIERE ABBOTT, K.C.	<i>Minister of Agriculture and Minister of Forests—</i> THE HON. SIR GEORGE JENKINS.

STATE MINISTERS—continued.

WESTERN AUSTRALIA (3rd August, 1945).

Premier and Treasurer—

THE HON. F. J. S. WISE.

Minister for Works, Water Supplies and Industrial Development—

THE HON. A. R. G. HAWKE.

Minister for Lands and Labour—

THE HON. A. H. PANTON.

Chief Secretary and Minister for Police—

THE HON. W. H. KITSON, M.L.C.

Minister for Justice and Health—

THE HON. E. NULSEN.

Minister for the North-west and Minister for Forests—

THE HON. A. A. M. COVERLEY.

Minister for Education, Agriculture and Social Services—

THE HON. J. T. TONKIN.

Minister for Mines, Railways and Transport—

THE HON. W. M. MARSHALL.

Honorary Minister—

THE HON. E. H. GRAY, M.L.C.

TASMANIA (18th December, 1939).

Premier and Treasurer—

THE HON. R. COSGROVE.

Attorney-General and Assistant Minister for Education—

THE HON. J. McDONALD, M.L.C.

Minister for Lands and Works—

THE HON. E. BROOKEE.

Minister for Agriculture, and Agricultural Bank—

THE HON. JOHN L. MADDEN.

Chief Secretary and Minister for Transport—

THE HON. C. E. CULLEY.

Minister for Education—

THE HON. E. R. A. HOWROYD.

*Honorary Ministers—*THE HON. W. P. TAYLOR, M.C.
(*Minister for Forests*).THE HON. H. T. LANE (*Minister for Mines*).THE HON. A. J. WHITE.
(*Minister for Health*).

4. The Course of Legislation.—The actual legislation by the Commonwealth Parliament up to the end of 1944, is indicated in alphabetical order in "Vol. XLII. of the Acts of the Parliament of the Commonwealth of Australia, passed during 1944, with Tables, Appendix and Index." A "Chronological Table of Acts passed from 1901 to 1944, showing how they are affected by Acts passed during the year 1944" is also given, and further "A Table of Commonwealth Legislation passed during the year 1944 in relation to the several provisions of the Constitution", is furnished. Reference should be made to these for complete information. In issues of the Official Year Book prior to No. 23, an analytic table was included showing the nature of Commonwealth legislation in force at the end of the latest year available. A classification of legislation, according to its relation to the several provisions of the Constitution, up to the end of the year 1928 will be found in No. 22, pp. 76-84.

§ 4. Cost of Parliamentary Government.

The following statement shows the cost of parliamentary government in the Commonwealth and in each State, as well as the cost per head of population, for the year ended 30th June, 1944. In order to avoid incorrect conclusions as to the cost of the Governor-General's or Governor's establishment, it may be pointed out that a very large part of the expenditure (with the exception of the item "Governor's salary") under the head of Governor-General or Governor represents official services entirely outside the Governor's personal interest, and carried out at the request of the Government.

COST OF PARLIAMENTARY GOVERNMENT, 1943-44.

Particulars.	C'wlth.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total
	£	£	£	£	£	£	£	£
1. Governor-General or Governor—								
Governor's salary	10,000	5,000	5,000	3,000	5,000	(a) 2,000	3,000	33,000
Other salaries	2,076	4,865	930	1,863	681	970	882	12,267
Other expenses, including maintenance of house and grounds	b 20,353	2,740	5,913	(b) 3,875	1,667	2,297	3,208	40,053
Total	32,429	12,605	11,843	8,738	7,348	5,267	7,090	85,320
2. Executive Council—								
Salaries of Officers	(c)	28	687	30	..	60	(d)	805
Other expenses	(c)	44	26	95	..	..	(d)	165
Total	(c)	72	713	125	..	60	(d)	970
3. Ministry—								
Salaries of Ministers	22,750	23,420	11,250	11,796	7,750	8,200	6,500	91,666
Travelling expenses	7,337	21,582	(e)	..	(e)	3,460	1,610	33,989
Other	194	715	(e)	..	(e)	..	2,969	3,878
Total	30,281	45,717	11,250	11,796	7,750	11,660	11,079	129,533
4. Parliament—								
A. Upper House :								
President and Chairman of Committees	2,000	1,900	1,370	..	530	1,800	296	7,896
Allowance to members	36,063	(f) 150	5,931	..	6,534	16,700	7,205	72,583
Railway passes	5,760	g 11,790	(h) 9,000	..	1,226	4,003	1,000	32,779
Postage for members	2,921	(i)	381	..	70	169	(e)	3,541
B. Lower House :								
Speaker and Chairman of Committees	2,000	2,613	(j) 2,349	2,000	1,404	1,689	350	12,405
Allowance to members	75,164	68,992	27,835	34,410	13,181	27,691	12,294	259,587
Railway passes	12,000	g 18,680	(k)	12,333	2,390	6,875	1,650	53,928
Postage for members	6,174	(h) 3,357	1,364	2,521	447	366	(e)	14,229
C. Both Houses :								
Standing Committee on Public Works—								
Expenses of members .. ..	..	..	1,401	..	1,852	..	191	3,444
Salaries of staff and contingencies .. ..	..	773	1,135	..	983	..	75	2,900
Printing—								
Hansard	11,298	3,314	4,200	3,189	2,257	1,566	..	25,914
Other	6,353	5,438	4,601	1,585	4,717	670	2,452	25,816
Reporting staff—								
Salaries	11,384	8,727	7,417	2,929	6,419	6,005	..	42,881
Contingencies	89	115	106	..	473	76	..	859
Library—								
Salaries	7,301	3,961	2,271	1,095	958	50	73	15,709
Contingencies	2,469	1,328	750	629	451	215	..	5,842
Salaries of other officers	43,939	31,213	13,064	8,977	8,000	7,650	4,100	117,033
Other	40,972	1,363	..	..	861	763	..	43,959
D. Miscellaneous :								
Fuel, light, heat, power, and water	2,898	1,752	1,453	741	2,186	151	..	..
Posts, telegraphs, telephones	3,654	4,448	990	1,234	1,187	302	..	..
Furniture, stores, and stationery	3,223	945	..	191	1,935	250	..	..
Other	86,177	2,143	234	1,952	2,349	1,021	940	94,816
Total	361,839	173,002	85,962	73,786	60,500	78,012	31,043	864,144

(a) Salary of Lieut.-Governor. (b) Commonwealth, includes interest and sinking fund on loans, £4,318, and new works, buildings, etc., £186; Queensland, includes £650 allowances to Lieut.-Governor. (c) Included under Governor-General. (d) Duties performed by Chief Secretary's Department. (e) Not available separately. (f) Allowance to representative of Government in Legislative Council. (g) Estimated. (h) Both Houses. (i) Included with Lower House. (j) Includes Leader of the Opposition and Leader of the Labour Party. (k) Included with Upper House. (l) Includes interest and sinking fund, Parliament House, Canberra, £35,142; and maintenance of members' rooms in capital cities, £13,711.

COST OF PARLIAMENTARY GOVERNMENT—*continued.*

Particulars.	C'with.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
5. <i>Electoral—</i>	£	£	£	£	£	£	£	£
Salaries	95,626	2,559	778	2,919	3,499	6,028	(d)	111,400
Cost of elections, contingencies, etc.	139,155	40,216	25,255	32,546	11,846	16,740	2,060	267,818
Total	234,781	42,775	26,033	35,465	15,345	22,768	2,060	379,227
6. <i>Royal Commissions, Select Committees, etc.</i>	4,712	..	4,278	1,533	..	..	818	11,341
Total	4,712	..	4,278	1,533	..	..	818	11,341
GRAND TOTAL	664,042	274,171	140,079	131,443	90,943	117,767	52,090	1,470,535
Cost per head of population	1s. 10d.	1s. 10d.	1s. 5d.	2s. 6d.	2s. 11d.	4s. 11d.	4s. 3d.	4s. 10d.

(d) Duties performed by Chief Secretary's Department.

Figures showing total cost and cost per head during each of the five years 1940-41 to 1943-44 in comparison with 1938-39 are given in the next table.

COST OF PARLIAMENTARY GOVERNMENT.

Year.	C'wealth.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total
TOTAL.								
	£	£	£	£	£	£	£	£
1938-39	516,455	232,709	114,497	106,942	97,383	113,793	49,270	1,231,049
1940-41	592,482	264,255	112,533	125,642	94,292	104,310	49,174	1,342,688
1941-42	523,795	221,022	112,648	99,544	82,859	108,038	52,864	1,199,770
1942-43	539,475	220,958	139,224	103,204	81,867	102,146	49,609	1,236,483
1943-44	664,042	274,171	140,079	131,443	90,943	117,767	52,090	1,470,535
PER HEAD OF POPULATION.								
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1938-39	1 6	1 8	1 3	2 1	3 3	4 11	4 2	3 7
1940-41	1 8	1 11	1 2	2 5	3 2	4 5	4 1	3 10
1941-42	1 6	1 7	1 2	1 11	2 9	4 6	4 5	3 4
1942-43	1 6	1 7	1 5	2 0	2 8	4 4	4 1	3 5
1943-44	1 10	1 11	1 5	2 6	3 11	4 11	4 3	4 1

§ 5. Government Employees.

1. *Australia, 1939 to 1944.*—The following table shows at June in each of the years 1941 to 1944 in comparison with 1939 the number of employees of Commonwealth and Allied Governments, State and Semi-Government bodies, and Local Government authorities. These include not only administrative employees but also employees in business undertakings, public utilities operated by Governments, and persons engaged on construction of public works, as well as employees in Commonwealth munition factories and in factories connected with Government undertakings and utilities.

GOVERNMENT EMPLOYEES—AUSTRALIA.

June—	Commonwealth and Allied Governments.			State Govt. and Semi-Government Bodies.			Local Government Authorities.(a)			Total.		
	M.	F.	Persons.	M.	F.	Persons.	M.	F.	Persons.	M.	F.	Persons.
1939	56,177	12,335	68,512	245,415	40,920	286,335	60,708	1,786	63,494	362,309	56,041	418,341
1941	82,452	23,686	106,138	247,777	42,755	290,532	49,340	2,804	52,144	379,569	69,245	448,814
1942(b)	136,801	49,196	185,997	210,010	47,740	287,750	41,860	3,865	45,725	418,671	106,801	510,472
1943(b)	146,879	71,720	218,599	228,904	53,148	282,052	36,690	4,305	40,995	412,473	129,173	541,646
1944(b)	137,053	71,795	208,848	229,792	53,846	283,638	37,203	1,219	41,422	404,048	129,860	533,908

(a) Partly estimated.

(b) Includes United States of America authorities' civilian employees in Australia

The figures in all cases exclude personnel of defence forces. The increase in number of employees of the Commonwealth and Allied Governments in 1941-42 and 1942-43 was due mainly to expansion of Government munition factories, Allied Works projects and administrative organizations of Allied Governments and war-time departmental controls. In 1943-44 there was a decrease in Commonwealth Government employment following completion of certain munitions and defence works programmes. The diminution in number of employees of State and Semi-Government authorities since 1941 was due to a curtailment of peace-time work.

2. **Commonwealth and States, etc., June, 1943 and 1944.**—The number of employees of the Commonwealth and Allied Governments and of the State Governments, Semi-Government and Local Government authorities in each State as at June, 1943 and 1944, are shown in the following table:—

GOVERNMENT EMPLOYEES, JUNE, 1943 AND 1944.

Employed by—	1943.			1944.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
Commonwealth and Allied Governments ^(a)	146,879	71,720	218,599	137,053	71,795	208,848
New South Wales ..	105,220	21,483	126,703	106,799	21,550	128,349
Victoria ..	65,178	16,083	81,261	65,707	16,686	82,393
Queensland ..	41,377	7,116	48,493	42,514	7,238	49,752
South Australia ..	26,817	6,450	33,267	26,353	6,065	32,418
Western Australia ..	18,716	4,276	22,992	18,158	4,409	22,567
Tasmania ..	8,286	2,045	10,331	7,464	2,117	9,581
Total ..	412,473	129,173	541,646	404,048	129,860	533,908

(a) Includes United States of America Authorities' civilian employees in Australia.

§ 6. Diplomatic and other Representatives Overseas and in Australia.

The following statement shows the various diplomatic and other representatives overseas and in Australia as at 31st December, 1945. Full details of Australian diplomatic and consular representation and of foreign representation in Australia can be obtained from a publication issued by the Department of External Affairs, Canberra, entitled "Diplomatic and Consular List, including British Commonwealth Representatives and Trade Commissioners in Australia".

AUSTRALIAN DIPLOMATIC AND OTHER REPRESENTATIVES OVERSEAS.

His Majesty's Envoy Extraordinary and Minister Plenipotentiary to—

United States of America, Washington, D.C.—

The Hon. Sir Frederic W. Eggleston.

Brazil, Rio de Janeiro—

L. R. Macgregor, C.B.E.

Chile, Santiago—

J. S. Duncan, C.B.E. (Minister Designate).

China, Chungking—

D. B. Copland, C.M.G. (Minister Designate).

France, Paris—

Lieut.-Colonel W. R. Hodgson, O.B.E.

Netherlands, London—

Chargé d'Affaires *ad interim*: J. D. L. Hood.

Union of Soviet Socialist Republics, Moscow—

The Hon. James J. Maloney, M.L.C.

High Commissioner for Australia in—

United Kingdom, London—

Vacant. Commonwealth Minister resident in London (The Rt. Hon. J. A. Beasley, M.P.) will act in this capacity for time being.

Canada, Ottawa—

A. T. Stirling, O.B.E.

India, New Delhi—

Lieut.-General Sir Iven Gifford Mackay, K.B.E., C.M.G., D.S.O., V.D.

New Zealand, Wellington—

The Hon. T. G. D'Alton.

Consul General—

New York, United States of America—

C. V. Kellway.

Consuls—

*New Caledonia—*H. S. Barnett.

*Portuguese Timor—*Vacant.

Trade Commissioners for the Commonwealth of Australia—

*United Kingdom—*C. E. Critchley, London.

*Canada—*Vacant.

*Egypt—*C. L. Steele, Cairo.

*India—*H. R. Gollan, D.S.O., M.C., Calcutta.

United States of America—

Trade Commissioner, R. R. Ellen, New York.

Commercial Counsellor, J. U. Garside, Washington, D.C.

DIPLOMATIC AND OTHER REPRESENTATIVES IN AUSTRALIA.

Envoy Extraordinary and Minister Plenipotentiary of—

United States of America, Canberra—

Vacant. *Chargé d'Affaires ad interim* : John R. Minter.

Brazil, Canberra—

Senhor Oscar Correia (Minister Designate).

China, Canberra—

His Excellency Mr. Cheng Ye-Tung.

Netherlands, Canberra—

His Excellency Baron F. C. van Aerssen Beyeren van Voshol, M.W.O.

Union of Soviet Socialist Republics, Canberra—

His Excellency Mr. N. M. Lifanov.

France, Canberra—

His Excellency Monsieur Pierre Auge.

Chargé d'Affaires en titre for the Republic of Chile, Canberra—

Senor M. E. Hubner.

High Commissioner for—*His Majesty's Government in the United Kingdom, Canberra—*Vacant. Deputy High Commissioner—W. C. Hankinson, C.M.G., O.B.E.,
M.C. (Acting).*Canada, Canberra—*

The Rt. Hon. Mr. Justice T. C. Davis.

New Zealand, Canberra—

Hon. J. G. Barclay.

India, Canberra—

Sir Raghunath P. Paranjpye.

Commissioner for Malta—

Captain H. C. Curmi, O.B.E., Melbourne.

TRADE COMMISSIONERS OF OVERSEAS GOVERNMENTS IN AUSTRALIA.*United Kingdom—*

His Majesty's Senior Trade Commissioner, Canberra—

Sir R. W. Dalton, C.M.G.

His Majesty's Trade Commissioners, Sydney—

J. R. Adams.

A. W. Burton, M.B.E.

His Majesty's Trade Commissioner, Melbourne—

H. F. Gurney.

His Majesty's Trade Commissioner, Brisbane—

A. Hartland.

Canada—

Government Trade Commissioner—

F. W. Fraser, Melbourne.

Acting Government Trade Commissioner—

K. F. Noble, Sydney.

*New Zealand—*Government Trade and Tourist Commissioner and New Zealand Supply Liaison
Officer—

W. Taylor, Sydney.

Officer in Charge New Zealand Government Offices, Melbourne, and New
Zealand Supply Liaison Officer—

J. A. Malcolm, Melbourne.

India—

Trade Commissioner—

R. R. Saksena, Sydney.

Netherlands Indies—

Trade Commissioner—

J. van Holst Pellekaan, Melbourne.

§ 7. Consular Representatives of Foreign Countries in Australia.

The following tabular statement shows the number of consular representatives of foreign countries in each State at 1st May, 1945:—

CONSULAR REPRESENTATIVES IN AUSTRALIA AT 1st MAY, 1945.

Number of Consular Representatives in—								Total, Aust.
Country.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.		
Argentina	1	1	..	..	..	..	2
Belgium	4	1	1	1	1	1	9	
Bolivia .. ..	..	..	1	..	..	..	1
Brazil	2	1	..	..	..	..	3
Chile	3	1	..	..	..	..	4
China	5	2	1	..	1	..	9	
Costa Rica	1	..	..	..	..	..	1
Czechoslovakia ..	1	1	1	1	1	..	5	
Denmark	2	2	2	1	2	1	10	
Dominican Republic	..	..	..	1	..	..	1
Ecuador	2	..	1	..	..	..	3
France	2	..	..	..	..	..	2
Greece	3	2	1	1	3	..	10	
Honduras	1	1	..	..	..	..	2
Latvia	1	1	1	1	..	..	4
Liberia .. ..	..	..	..	1	..	..	1
Netherlands	4	2	4	1	1	..	(a) 13	
Nicaragua .. ..	..	1	..	..	..	..	1
Norway	3	1	3	3	4	2	16	
Panama	2	..	1	..	..	..	3
Paraguay	1	..	..	..	1	..	2
Peru .. ..	..	1	..	1	..	..	2
Poland	3	1	..	..	..	..	4
Portugal	2	1	1	1	1	..	6	
Salvador .. ..	..	1	..	..	..	..	1
Spain .. ..	..	1	..	..	1	..	2
Sweden	2	1	3	3	1	1	11	
Switzerland	1	1	1	..	..	..	3
United States of America	8	4	3	1	2	..	18	
Yugoslavia	1	1	..	..	..	..	2
Total	55	29	25	17	19	5	151	

(a) Includes a Consul for the Netherlands in the Northern Territory.

Countries having Consuls-General or Senior Consuls in Sydney are Argentina, Belgium, Brazil, Chile, China, Costa Rica, Czechoslovakia, Denmark, Ecuador, France, Greece, Latvia, Netherlands, Norway, Paraguay, Poland, Portugal, Sweden, Switzerland, United States of America and Yugoslavia.

The Consuls-General in London for Latvia, Mexico and Turkey have jurisdiction over Australia and its Territories.

Particulars of the names and addresses of the various Consular representatives, as well as their rank and year of appointment, are contained in a publication issued by the Department of External Affairs, Canberra, entitled "Diplomatic and Consular List including British Commonwealth Representatives and Trade Commissioners in Australia."

CHAPTER IV.

LAND TENURE AND SETTLEMENT.

§ 1. Introduction.

1. **General.**—A comprehensive description of the land tenure systems of the several States is given in Official Year Book No. 4 (pp. 235-333), while later alterations are referred to in subsequent issues. In this chapter a summary is given of the principal features of existing land legislation. In previous issues an account is given of the various tenures under which Crown lands may be taken up. (*See* Official Year Book No. 22, pp. 133-195; also par. 2 hereunder for a conspectus of legislation at present in force). Special sections are devoted to closer settlement, the settlement of returned soldiers on the land and advances to settlers. Particulars as to the areas of land alienated in each State and similar matter are also included.

2 **State Land Legislation.**—The legislation in force relating to Crown Lands, Closer Settlement, Returned Soldiers' Settlement and other matters dealt with in this chapter is summarized in the following conspectus:—

STATE LAND LEGISLATION.

New South Wales.	Victoria.	Queensland.
CROWN LANDS ACTS.		
Crown Lands Act 1913-1941: Western Lands Act 1901-1942: Prickly Pear Act 1924-1944.	Land Acts 1928-1941: Land (Crown Leases Adjustment) Act 1936: Land (Residence Area) Act 1935: Land Act 1941: Land Settlement (Acquisition) Act 1943.	Land Acts 1910-1943: Upper Burnett and Callide Land Settlement Acts 1923-1932: Prickly Pear Land Acts 1923-1941: Sugar Workers' Selections Acts 1923-1936: Stock Routes Improvement and Animal and Vegetable Pests Destruction Acts 1936-1938: Stock Routes and Rural Lands Protection Act 1944.
CLOSER SETTLEMENT ACTS.		
Closer Settlement Act 1904-1943.	Closer Settlement Act 1938.	Closer Settlement Acts 1900-1941.
MINING ACTS.		
Mining Act 1906-1935: Mining Leases (Validation) Act 1935.	Mines Acts 1928-1942: Mines (Petroleum) Acts 1935-1943: Mines (Minerals) Act 1944.	Mining Acts 1898-1940: Mining for Coal and Mineral Oil Acts 1912-1941: Petroleum Acts 1923-1939: Miners' Homestead Leases Acts 1913-1939: Coal Mining Acts 1925-1940.
SOLDIERS' SETTLEMENT ACTS.		
Returned Soldiers' Settlement Act 1916-1938: War Service Land Settlement Act 1941.	..	Discharged Soldiers' Settlement Acts 1917-1938.
ADVANCES TO SETTLERS ACTS.		
Government Savings Bank Act 1906-1932: Returned Soldiers' Settlement Act 1916-1938: Rural Bank Agency Act 1934: Farmers' Relief Act 1932-1943: Rural Reconstruction Act 1939.	State Savings Bank Acts 1915-1922: Primary Products Advances Acts 1919-1922: Fruit and Vegetable Act 1928: Farmers Advances Acts and Drought Relief Act 1940: Farm Water Supplies Advances Act 1944: Farmers Advances Act 1944.	State Advances Acts 1916-1934: Co-ordination of Rural Advances and Agricultural Bank Acts 1938-1944: Farmers' Assistance (Debts Adjustment) Acts 1935-1938: Financial Arrangements and Development Aid Acts 1942-1944: Wire and Wire-netting Advances Act 1927-1944: Wire and Wire-netting Advances Act 1898-1944: Marsupial Proof Fencing Acts 1898-1944: The Rabbit Acts, 1913-1934.

STATE LAND LEGISLATION—*continued.*

South Australia.	Western Australia.	Tasmania.
CROWN LANDS ACTS.		
Crown Lands Act 1929-1941 : Pastoral Act 1936-1939 : Mar- ginal Lands Act 1940 : Crown Lands Development Act 1943.	Land Act 1933-1939.	Crown Lands Act 1935.
CLOSER SETTLEMENT ACTS.		
Crown Lands Act 1929-1941.	Closer Settlement Act 1927.	Closer Settlement Act 1929-1939.
MINING ACTS.		
Mining Act 1930-1941 : Broken Hill Proprietary Company In- denture Act 1937 : Leigh Creek Coal Act 1942.	Mining Act 1904-1937 : Sluicing and Dredging for Gold Act 1899 : Petroleum Act 1936- 1940 : Mines Regulation Act 1906 : Mining Development Act 1902-1924 : Inspection of Machinery Act 1921 : Gold Buyers Act 1921 : Coal Mines Regulation Act 1902-1926 : Miners' Phthisis Act 1922 : Mine Workers Relief Act 1932 : Mining Tenements (War Time) Exemptions 1942.	Mining Act 1929 : Aid to Mining Act 1927 : Mines and Works Regulation Act 1915.
SOLDIERS' SETTLEMENT ACTS.		
Discharged Soldiers' Settlement Act 1934-1940.	Discharged Soldiers' Settlement Act 1918.	Closer Settlement Act 1929-1939.
AGRICULTURAL GRADUATES SETTLEMENT ACTS.		
Agricultural Graduates Act 1922- 1938.		
ADVANCES TO SETTLERS ACTS.		
Irrigation Act 1930-1941 : Dis- charged Soldiers' Settlement Act 1934-1940 : State Bank Act 1925-1936 : Advances to Settlers Act 1930 : Agri- cultural Graduates Act 1922- 1938 : Loans for Fencing and Water Piping Act 1938-1940 : Vermin Act 1931-1939.	Agricultural Bank Act 1934 : Rural Relief Fund Act 1935.	State Advances Act 1935 : Closer Settlement Act 1929-1939 : Unemployed (Assistance to Primary Producers) Relief Act 1930-1934 : Farmers' Debt Adjustment Act 1936.

3. Northern Territory Land Legislation.—In the Northern Territory of Australia the legislation relating to Crown lands is embodied in the Crown Lands Ordinance 1931-1939 : that relating to mining in the Mining Ordinance 1939-1942, the Gold Dredging Act 1899, the Mineral Oil and Coal Ordinance 1922-1923, the Mining Development Ordinance 1939-1940, and the Mines Regulation Ordinance 1939 : and that relating to advances to settlers in the Encouragement of Primary Production Ordinance 1931-1938.

4. Australian Capital Territory Land Legislation.—In the Australian Capital Territory the Ordinances relating to Crown lands are the Leases Ordinance 1918-1937, the City Area Leases Ordinance 1936-1938, the Church Lands Leases Ordinance 1924-1932, and the Leases (Special Purposes) Ordinance 1925-1943.

5. **Administration and Classification of Crown Lands.**—In each of the States there is a Lands Department under the direction of a Minister who is charged generally with the administration of the Acts relating to the alienation, occupation and management of Crown lands. The administrative functions of most of the Lands Departments are to some extent decentralized by the division of the States into what are usually termed Land Districts, in each of which there is a Lands Office, which deals with applications for selections and other matters generally appertaining to the administration of the Acts within the particular district. In some of the States there is a local Land Board or a Commissioner for each district or group of districts. In the Northern Territory the Administrator, under the control of the Minister for the Interior, is charged with the general administration of the Lands Ordinance and of Crown lands in the Northern Territory. In the Australian Capital Territory the administration of the Leases Ordinances is in the hands of the Department of the Interior.

Crown lands are generally classified according to their situation, the suitability of the soil for particular purposes, and the prevailing climatic and other conditions. The modes of tenure under the Acts, therefore, as well as the amount of purchase-money or rent, and the conditions as to improvements and residence, vary considerably. The administration of special Acts relating to Crown lands is in some cases in the hands of a Board under the general supervision of the Minister.

In each of the States and in the Northern Territory there is also a Mines Department which is empowered under the several Acts relating to mining to grant leases and licences of Crown lands for mining and allied purposes.

6. **Classification of Tenures.**—The tabular statement which follows shows the several tenures under which Crown lands may be acquired or occupied in each State. In the Northern Territory, leases (excepting pastoral and "miscellaneous") are granted in perpetuity, pastoral and "miscellaneous" leases being restricted to periods of not more than 42 and 21 years respectively. The Lands Ordinance provides also for the grant in fee simple of town lands, agricultural lands, garden lands and tropical lands, and for the issue of grazing, occupation and "miscellaneous" licences. The mining leases and holdings are, generally speaking, similar to those of the States. In the Australian Capital Territory leases only are issued.

STATE CROWN LANDS : TENURES.

New South Wales.

Victoria.

Queensland.

FREE GRANTS AND RESERVATIONS.

Free Grants : Reservations.

Free Grants : Reservations.

Free Grants : Reservations.

UNCONDITIONAL PURCHASES OF FREEHOLD

Auction Sales : After-auction
Purchases : Special Purchases :
Improvement Purchases.

Auction Sales.

CONDITIONAL PURCHASES OF FREEHOLD.

Residential Conditional Pur-
chases : Non-residential Con-
ditional Purchases : Additional
Conditional Purchases : Con-
versions of various Lease-
hold Tenures into Conditional
Purchases : Purchases of Town
Leases, Suburban Holdings,
Returned Soldiers' Special
Holdings, Residential Leases,
Week-end Leases.

Residential Selection Purchase
Leases : Non-residential Sele-
ction Purchase Leases : Licences
of Auriferous worked-out
Lands : Conditional Purchase
Leases of Swamp or Reclaimed
Lands : Selection Purchase
Leases of Mallee Lands :
Murray River Settlements :
Special Settlement Areas :
Conversions into Selection
Purchase Leases.

STATE CROWN LANDS: TENURES—*continued.*

New South Wales.

Victoria.

Queensland.

LEASES AND LICENCES UNDER LAND ACTS.

Conditional Leases: Conditional Purchase Leases: Special Conditional Purchase Leases: Homestead Selections: Homestead Farms: Settlement Leases: Special Leases: Annual Leases: Scrub Leases: Snow Leases: Inferior Lands Leases: Crown Leases: Improvement Leases and Leases under Improvement Conditions: Occupation Licences: Leases of Town Lands: Suburban Holdings: Weekend Leases: Residential Leases: Leases in Irrigation Areas: Western Lands Leases: Forest Leases: Forest Permits: Prickly Pear Leases.

Perpetual Leases: Auriferous Lands Licences: Leases of Swamp or Reclaimed Lands: Perpetual Leases of Swamp or Reclaimed Lands: Grazing Licences: Perpetual Leases (Mallice): Miscellaneous Leases and Licences: Bee Farm Licences: Bee Range Area Licences: Eucalyptus Oil Licences: Forest Leases: Forest Licences: Forest Townships: Land (Residence Areas).

Perpetual Lease Selections: Perpetual Lease Prickly Pear Selections: Perpetual Lease Prickly Pear Development Selections: Grazing Selections: Development Grazing Selections: Prickly Pear Development Grazing Selections: Pastoral Holdings: Preferential Pastoral Holdings: Pastoral Development Holdings: Stud Holdings: Prickly Pear Leases: Forest Grazing Leases: Occupation Licences: Special Leases: Auction Perpetual Leases.

CLOSER SETTLEMENT.

Sales by Auction and Tender: After-auction Sales and Tenders: Settlement Purchases: Settlement Purchase Leases: Closer Settlement Leases.

Sales of Land: Conditional Purchase Leases: Conditional Purchase Leases in Mountainous Areas.

Perpetual Lease Selections: Settlement Farm Leases: Perpetual Town, Suburban and Country Leases.

LEASES AND LICENCES UNDER MINING ACTS.

Holdings under Miners' Rights and Business Licences: Gold-mining Leases: Mineral Leases: Dredging Leases: Special Leases: Mining Purpose Leases: Authorities to Prospect (Section 17).

Holdings under Miners' Rights: Gold-mining Leases: Mineral Leases: Water Right Licences: Petroleum Prospecting Licences: Petroleum Mineral Leases.

Holdings under Miners' Rights: Permits to Prospect for Petroleum: Petroleum Leases: Licences to Prospect for Coal and Mineral Oil: Gold-mining Leases: Mineral Leases: Coal-mining Leases: Business Areas: Residence Areas: Miners' Homestead Leases and Miners' Homestead Perpetual Leases.

SETTLEMENT OF DISCHARGED SOLDIERS AND SAILORS.

Soldiers' Group Purchases: Returned Soldiers' Special Holding Leases: Returned Soldiers' Special Holding Purchases: also Purchases and Leases under Crown Lands Act and Allied Acts of lands set apart for application by discharged soldiers exclusively.

(Same Tenures as under the Land and Closer Settlement Acts.)

Perpetual Lease Selections: Perpetual Town and Suburban Leases.

STATE CROWN LANDS: TENURES—*continued.*

South Australia.	Western Australia.	Tasmania.
FREE GRANTS AND RESERVATIONS.		
Free Grants: Reservations.	Free Grants: Reservations.	Free Grants: Reservations.

UNCONDITIONAL PURCHASES OF FREEHOLD.

Auction Sales: By Private Contract (Land passed at Auction).	Auction Sales.	Auction Sales: After-auction Sales: Sales of Land in Mining Towns.
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CONDITIONAL PURCHASES OF FREEHOLD.

Agreements to Purchase: Special Agreements to Purchase (40 years' term): Homestead Blocks: Town of Whyalla Allotments in fee-simple.	Conditional Purchases with Residence: Conditional Purchases without Residence: Conditional Purchases by Direct Payment: Conditional Purchases of Land for Vineyards, etc.: Conditional Purchases by Pastoral Lessees: Conditional Purchases of Grazing Lands: Homestead Farms: Special Settlement Leases.	Selections for Purchase: Additional Selections for Purchase: Sales by Auction: Sales by Private Contract: After-auction Sales: Special Settlement Areas.
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LEASES AND LICENCES UNDER LAND ACTS.

Perpetual Leases: Special Perpetual Leases (Free Period): Perpetual Leases of Homestead Blocks: Miscellaneous Leases: Licences: Pastoral Leases: Irrigation Blocks: Town Allotments in Irrigation Areas and Town of Whyalla: Forest Leases: Perpetual Leases Marginal Lands.	Pastoral Leases: Special Leases: Leases of Town and Suburban Lands: Cropping Leases.	Grazing Leases: Pastoral Leases: Leases of Land covered with Button Grass, etc.: Leases of Mountainous Land: Miscellaneous Leases: Temporary Licences: Occupation Licences: Residence Licences: Business Licences: Forest Leases, Licences and Permits.
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CLOSER SETTLEMENT.

Sales by Auction: Agreements to Purchase: Perpetual Leases: Miscellaneous Leases.	Conditional Purchases: Town and Suburban Areas.	Leases with Right of Purchase: Special Sales.
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LEASES AND LICENCES UNDER MINING ACTS.

Holdings under Miners' Rights: Search Licences: Occupation Licences: Gold Leases: Mineral Leases: Coal Leases: Oil Licences: Dredging Leases: Business Licences: Residence Areas: Miscellaneous Leases (Salt and Gypsum).	Holdings under Miners' Rights: Gold-mining Leases: Mineral Leases: Business Areas: Residence Areas: Miners' Homestead Leases.	Holdings under Miners' Rights: Prospectors' Licences: Gold-mining Leases: Mineral Leases.
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SETTLEMENT OF DISCHARGED SOLDIERS AND SAILORS.

Perpetual Leases: Pastoral Leases: Agreements to Purchase: Miscellaneous Leases.	Ordinary Tenure: Special Tenure.	Free Grants: Ordinary Tenure: Special Tenure.
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AGRICULTURAL GRADUATES SETTLEMENT.

Agreements to Purchase: Perpetual Leases.

§ 2. Free Grants and Reservations.

1. *New South Wales.*—(i) *Free Grants.* Crown lands may, by notification in the *Gazette*, be dedicated for public purposes and be granted therefor in fee-simple. Such lands may be placed under the care and management of trustees, not less than three in number, appointed by the Minister.

(ii) *Reservations.* Temporary reservations of Crown lands from sale or lease may be made by the Minister.

(iii) *Areas Granted and Reserved.* During 1942-43 and 1943-44 1,090 and 4,935 acres respectively were dedicated and permanently reserved, the number of separate dedications being 85 and 59 respectively.

At 30th June, 1944 (figures at 30th June, 1943, in parenthesis) the total area reserved, including temporary reserves, was 18,318,950 (17,566,085) acres, of which 5,317,720 (5,314,514) acres were for travelling stock, 4,242,936 (4,150,867) acres pending classification and survey, 2,136,192 (2,138,414) acres for forest reserves, 831,449 (831,173) acres for water and camping, 1,285,309 (1,289,653) acres for mining, and the remainder for temporary commons, railways, recreation reserves and parks, reserves for aborigines, and miscellaneous purposes. A large proportion of the total area reserved is occupied under annual, special, scrub or forestry leases or on occupation licences or permissive occupancy, and is included under the appropriate leasehold tenures described in the following sections.

2. *Victoria.*—(i) *Free Grants.* The Governor may grant, convey or otherwise dispose of Crown lands for public purposes.

(ii) *Reservations.* The Governor may temporarily or permanently reserve from sale, lease or licence any Crown lands required for public purposes, and may except any area of Crown lands from occupation for mining purposes under any miner's right.

(iii) *Areas Granted and Reserved.* During 1942, 1943 and 1944, 24, 38 and 10 acres respectively were granted without purchase. The areas both temporarily and permanently reserved at the end of 1942, 1943 and 1944 were as follows :—

AREAS TEMPORARILY AND PERMANENTLY RESERVED : VICTORIA.

At 31st December—	Roads.	Water Reserves.	Agricultural Colleges, etc.	Forest and Timber Reserves.		Reserves in the Mallee.	Other Reserves.	Total Area Reserved.
				Under Forests Acts. (a)	Under Land Acts.			
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1942 ..	1,794,218	314,061	88,586	4,904,364	153,841	410,000	543,781	8,208,851
1943 ..	1,794,218	314,048	88,586	4,904,364	157,897	410,000	543,864	8,212,977
1944 ..	1,794,218	314,048	88,586	4,904,364	156,697	410,000	547,864	8,215,777

(a) Timber Reserves, included in figures, amounted to 717,582 acres in each year.

3. *Queensland.*—(i) *Free Grants.* The Governor may grant in trust any Crown land which is or may be required for public purposes. Under the Irrigation Act, land to be used for the purpose of any undertaking under that Act may be vested in fee-simple in the Irrigation Commission.

(ii) *Reservations.* The Governor may reserve from sale or lease, either temporarily or permanently, any Crown land which is or may be required for public purposes. Reserved lands may be placed under the control of trustees who are empowered to lease the same for not more than 21 years with the approval of the Minister.

Under the State Forests and National Parks Act, the Governor may permanently reserve any Crown lands and declare them to be a State Forest or a national park.

(iii) *Areas Granted and Reserved.* During 1942, 1943 and 1944 respectively the areas granted in fee-simple without payment were 14, 10 and 3 acres, the area set apart as reserves 1,277,713, 62,066 and 165,646 acres, and reserves cancelled 898,225, 52,542 and 152,097 acres. The areas reserved, including roads, at the end of 1942, 1943 and 1944 were as follows:—

AREAS RESERVED : QUEENSLAND.

At 31st December—	Timber Reserves.	State Forests and National Parks.	Aboriginal Reserves.	Streets, Surveyed Roads and Stock Routes.	General.	Total Area Reserved.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1942..	3,096,785	3,957,832	5,938,353	3,037,092	5,663,455	21,693,517
1943..	3,107,983	3,961,755	5,938,309	3,038,642	5,657,902	21,704,591
1944..	3,063,199	4,017,490	5,937,689	3,040,848	5,661,120	21,720,346

4. *South Australia.*—(i) *Free Grants.* The Governor may dedicate Crown lands for any public purpose and grant the fee-simple of such lands, with the exception of foreshores and land for quays, wharves or landing-places, which are inalienable in fee-simple from the Crown.

(ii) *Reservations.* The Governor may reserve Crown lands for the use and benefit of aborigines, military defence, forest reserves, railway stations, park lands or any other purpose that he may think fit.

(iii) *Areas Granted and Reserved.* During 1942-43 and 1943-44 respectively free grants were issued for areas of 152 and 64 acres, and reserves comprising 16,415 and 3,546 acres were proclaimed. At 30th June, 1943 and 1944, the total area of surveyed roads, railways and other reserves was 20,218,545 and 20,222,241 acres respectively including at each date, 16,726,400 acres in the north-west of the State set apart as an aboriginal reserve in 1921, and 595,200 acres at Ooldea, adjoining the transcontinental railway, reserved for a similar purpose in 1940.

5. *Western Australia.*—(i) *Free Grants.* The Governor may dispose of, in such manner as for the public interest may seem best, any lands vested in the Crown for public purposes, and may grant the fee-simple of any reserve to secure the use thereof for the purpose for which such reserve was made.

(ii) *Reservations.* The Governor may reserve any lands vested in the Crown for public purposes. Areas not immediately required may be leased by the Governor for periods up to 10 years. Reserves may be placed under the control of a local authority or trustees, with power to lease them for a period not exceeding 21 years, or may be leased for 99 years. Temporary reserves may also be proclaimed.

(iii) *Areas Granted or Reserved.* During the years ended 30th June, 1943 and 1944, a few small areas of land were granted in fee-simple, and approximately 69,550 and 365,490 acres respectively were reserved for various purposes. At 30th June, 1944 (figures at 30th June, 1943, in parenthesis), the total area reserved was 49,596,251 (49,230,760) acres, comprising State forests, 3,393,031 (3,367,216) acres, timber reserves 1,778,111 (1,775,350) acres, and other reserves 44,425,109 (44,088,194) acres.

6. *Tasmania.*—(i) *Free Grants.* No mention is made in the Crown Lands Act respecting free grants of land, and it is expressly stated that no lands may be disposed of as sites for religious purposes except by way of sale under the Act. Under the Returned Soldiers' Settlement Act of 1916, returned soldiers who applied prior to 31st March, 1922, were eligible to receive free grants of Crown land not exceeding £100 each in value, but these grants were conditional on the land being adequately improved.

(ii) *Reservations.* The Governor in Council may except from sale or lease, and reserve to His Majesty any Crown land for public purposes, and vest for such term as he thinks fit any land so reserved in any person or corporate body. Any breach or non-fulfilment of the conditions upon which such land is reserved renders it liable to forfeiture. A school allotment, not exceeding 5 acres in area, may also be reserved.

(iii) *Areas Granted or Reserved.* The total area reserved at the end of 1942 and 1943 was 2,817,151 and 2,827,592 acres respectively excluding 21,936 and 22,032 acres respectively of land occupied by Commonwealth and State Departments.

7. *Northern Territory.*—(i) *Reservations.* The Governor-General may resume for public purposes any Crown lands not subject to any right of or contract for purchase, and may reserve, for the purpose for which they are resumed, the whole or any portion of the land so resumed.

(ii) *Areas Reserved.* The total area of reserves at 30th June, 1943 and 1944 was 69,256 square miles, comprising aboriginal native, 67,257 square miles; and other reserves, 1,999 square miles.

§ 3. Unconditional Purchases of Freehold.

1. *New South Wales.*—(i) *Auction Purchases.* Crown lands, not exceeding in the aggregate 200,000 acres in any one year, may be sold by public auction in areas not exceeding half-an-acre for town lands, 20 acres for suburban lands, and 640 acres for country lands, at the minimum upset price of £8, £2 10s., and 15s. per acre respectively. At least 10 per cent. of the purchase-money must be paid at the time of sale, and the balance within three months, or the Minister may allow the payment of such balance to be deferred for a period not exceeding ten years, 4 per cent. interest being charged. Town blocks in irrigation areas may also be sold by auction.

(ii) *After-Auction Purchases.* In certain cases, land offered at auction and not sold may be purchased at the upset price. A deposit in accordance with the terms and conditions under which the land was previously offered must be lodged, and, if the application be approved by the Minister, the balance of purchase money is payable as required by the specified terms and conditions.

(iii) *Special Purchases.* Under certain circumstances, land may be sold in fee-simple, the purchaser paying the cost of survey and of reports thereon, in addition to the purchase-money. The minimum upset price per acre is the same as in the case of land sold by auction. Areas not exceeding 5 acres in extent may be sold to recognized religious bodies and public authorities at prices determined by the local land board.

(iv) *Improvement Purchases.* The owner of improvements in land in authorized occupation by residence under any Mining or Western Lands Act of land within a gold-field or mineral field may purchase such land without competition at a price determined by the local Land Board, but at not less than £8 per acre for town lands or £2 10s. per acre for other lands. The area must not exceed $\frac{1}{2}$ acre within a town or village, or 2 acres elsewhere, and no person may purchase more than one such area within 3 miles of a similar prior purchase by him.

(v) *Areas Sold.* During the year ended 30th June, 1944 (figures for year ended 30th June, 1943, in parenthesis), the total area sold was 673 (422) acres, of which 142 (11) acres were sold by auction and 61 (33) acres as after-auction purchases, while 27 (27) acres were sold as improvement purchases and 443 (351) acres as special purchases. The amount realized for the sale of the whole area was £17,016 (£11,076).

2. *Victoria.*—(i) *General.* Lands, not exceeding 100,000 acres in any one year, specially classed for sale by auction may be sold by auction in fee-simple at an upset price not less than £1 per acre. The purchaser must pay the survey fee at the time of the sale, together with a deposit of $12\frac{1}{2}$ per cent. of the whole price; the residue is payable in equal

half-yearly instalments with interest. Any unsold land in a city, town or borough, areas specially classed for sale, isolated pieces of land not exceeding 150 acres in area, and sites for churches or charitable purposes, if not more than 3 acres in extent, may be sold by auction on the same terms. Swamp or reclaimed lands may also be sold by auction, subject to the condition that the owner keeps open all drains, etc., thereon.

(ii) *Areas sold at Auction and by Special Sales.* During 1942, 1943 and 1944 totals of 646, 572 and 818 acres respectively were disposed of under this tenure, 425, 390 and 312 acres being country lands, while 221, 182 and 506 acres of town and suburban lands were sold by auction.

3. *Queensland.*—(i) *General.* From 1917 to 1929 the law precluded land being made available for any class of selection which gave the selector the right to acquire the freehold title. Amending legislation giving power to make land available under freehold tenures was passed in 1929 but this provision was repealed by the Act of 1932.

(ii) *Areas Sold, etc.* During 1942, 1943 and 1944, no unconditional selections were made freehold.

4. *South Australia.*—(i) *Sales by Auction.* The following lands may be sold by auction for cash :—(a) special blocks ; (b) Crown lands which have been offered for lease and not taken up within two years ; (c) town lands ; and (d) suburban lands which the Governor excepts from the operations of the Land Board. A purchaser must pay 20 per cent. of the purchase money in cash, and the balance within one month or within such extended time as the Commissioner of Crown Lands may allow. Town lands may be sold subject to the condition that they cannot be transferred or mortgaged within six years without the consent of the Commissioner. If the Commissioner of Crown Lands so determines, town lands may also be offered at auction on terms that the buyer may at his option purchase the lands for cash or on agreement for sale and purchase.

(ii) *Areas Sold, etc.* During the years ended 30th June, 1943 and 1944, the area of town lands and special blocks sold by auction was 30 and 84 acres respectively. In addition 19,802 and 21,115 acres respectively were sold at fixed prices, and the purchases of 78,287 and 70,671 acres respectively on credit were completed, making a total of 98,119 and 91,870 acres respectively.

5. *Western Australia.*—(i) *Sales by Auction.* Town, suburban and village lands must be sold by auction after being surveyed into lots and notified in the *Gazette*. Ten per cent. of the purchase-money must be paid in cash together with the value of any improvements, and the balance in four equal quarterly instalments. Suburban land must be fenced within two years, and no Crown grant may be issued until the land is fenced.

(ii) *Areas Sold.* During the years ended 30th June, 1943 and 1944, the area of town and suburban allotments sold by auction was 23 and 58 acres in 30 and 146 allotments respectively.

6. *Tasmania.*—(i) *Sales by Auction.* Town lands may be sold by auction for cash or on credit. No town land, the price of which is less than £15, may be sold on credit.

(ii) *After-Auction Sales.* Town lands, not within 5 miles of any city, which, after having been offered at auction, have not been sold, may be sold at the upset prices by private contract.

(iii) *Sales of Land in Mining Towns.* Any person being the holder of a residence licence or business licence who shall be in lawful occupation of any residence area or business area, and who shall be the owner of buildings and permanent improvements upon such land of a value equal to or greater than the upset price of such area, shall be entitled to purchase such area at the upset price at any time prior to the day on which such area is to be offered for sale as advertised. The upset price for such area shall not be less than £10, excluding the value of improvements, cost of survey, and of grant deed. The area which may be so purchased may, with the consent of the Commissioner, exceed one-quarter of an acre, but shall not in any case exceed one-half of an acre.

§ 4. Conditional Purchases of Freehold.

1. **General.**—The various methods of obtaining Crown lands by conditional purchase in the several States are given in some detail in preceding issues of the Official Year Book (*see* No. 22, pp. 141-9).

2. **New South Wales.**—At 30th June, 1943 and 1944, the total number of incomplete conditional purchases in existence was 41,643 and 41,403 respectively, covering an area of 13,874,235 and 13,693,600 acres respectively. The following table gives particulars of conditional purchases, including non-residential conditional purchases and special area conditional purchases, for the years ended 30th June, 1943 and 1944, together with the total area for which deeds have been issued:—

CONDITIONAL PURCHASES : NEW SOUTH WALES.

Year ended 30th June—	Applications Received. (a)			Applications Confirmed.(a)			Areas for which Deeds have been Issued.	
	Number.			Number.		Area.	During the Year.	To end of Year.
						Acres.	Acres.	Acres.
1943		53		30		5,089	171,847	31,038,428
1944		49		30		1,769	157,092	31,222,952

(a) Excludes conversions from other tenures, 1942-43, 322 comprising 44,339 acres; 1943-44, 368 comprising 68,412 acres.

3. **Victoria.**—Excluding selections in the Mallee country, the total area purchased conditionally in 1942, 1943 and 1944 was 26,563, 11,474 and 1,507 acres respectively, comprising 26,441 acres with residence and 122 acres without residence in 1942, and all with residence in 1943 and 1944. The number of selectors was 96, 54 and 9 respectively. Mallee country was taken up conditionally during 1942 to the extent of two cases for 2,200 acres, while there were no selections in the Mallee in 1943 and 1944.

In addition the final payments were made during 1944 on conditional purchases comprising 649 acres of Mallee lands. No final payments were made during 1942 and 1943.

4. **Queensland.**—The following selections were made freehold during 1942, 1943 and 1944:—Agricultural Farms, 180,085, 153,088 and 127,350 acres; Agricultural Homesteads 1,053, 3,242 and 1,020 acres; Prickly Pear Selections, 18,998, 16,745 and 34,921 acres; and Prickly Pear Development Selections 3,821, 351 and 1,387 acres.

5. **South Australia.**—The land allotted under agreements to purchase during 1943-44 (figures for 1942-43 in parenthesis) was 9,195 (6,075) acres, comprising Eyre's Peninsula Railway lands 1,170 (9) acres, closer settlement lands 2,870 (1,023) acres, Murray Lands Railway lands 60 (30) acres, soldiers' acquired lands 3,392 (3,830) acres, surplus lands 86 (1,131) acres, and other Crown lands 1,617 (52) acres.

6. **Western Australia.**—During the year ended 30th June, 1944 (figures for the year ended 30th June, 1943, in parenthesis) the number of holdings conditionally alienated was 252 (194), the total area involved being 196,818 (123,559) acres, comprising conditional purchases by deferred payments with residence of 192,441 (119,715) acres and free homestead farms 4,377 (3,844) acres. Under the heading "deferred payments (with residence)" are included conditional purchases of grazing lands.

In addition, Crown grants were issued during 1943-44 (1942-43 in parenthesis) for the following selections, the prescribed conditions having been compiled with:—Free homestead farms 7,440 (4,501) acres and conditional purchases 124,071 (38,717) acres.

7. **Tasmania.**—During 1943-44 (1942-43 in parenthesis) conditional purchases of 20,951 (22,601) acres were completed. The total area sold conditionally was 4,591 (12,724) acres, comprising selections for purchase 4,425 (12,661) acres, and town and suburban allotments 166 (63) acres. The numbers of applications received and confirmed during the year were 71 (99) and 121 (60) respectively.

§ 5. Leases and Licences under Land Acts.

1. **General.**—Information regarding the methods of obtaining leases and licences of Crown lands in the several States and Territories is given in preceding issues of the Official Year Book (*see* No. 22, pp. 149–63).

2. **New South Wales.**—On 30th June, 1944, the area of leases and licences under the control of the Department of Lands, the Water Conservation and Irrigation Commission, and the Western Lands Commission, comprised 111,098,916 acres of Crown lands, compared with 111,555,150 acres at the close of the previous year.

The following table shows the areas which were granted under lease or licence during 1942–43 and 1943–44, and those held under various descriptions of leases and licences at the end of 1943–44:—

AREAS TAKEN UP DURING 1942–43 AND 1943–44 AND AREAS OCCUPIED UNDER LEASE OR LICENCE AT 30TH JUNE, 1944 : NEW SOUTH WALES.(a)

Particulars.	Area taken up during—		Area occupied at end of 1943–44.
	1942–43.	1943–44.	
	Acres.	Acres.	Acres.
<i>Areas taken up under Crown Lands Act.</i>			
Occupation licences—ordinary .. ..	..	..	519,794
preferential .. ..	..	..	263,898
Conditional leases	1,272	..	11,495,802
Conditional purchase leases .. ..	..	..	172,800
Settlement leases .. ..	..	..	2,784,921
Improvement leases .. ..	..	..	76,699
Annual leases	18,828	21,322	524,552
Scrub leases .. ..	..	..	93,019
Snow leases .. ..	..	553,640	553,640
Special leases	68,058	50,572	973,775
Inferior land leases .. ..	..	..	24,233
Residential leases (on gold and mineral fields)	136	193	5,514
Church and school lands .. ..	..	..	11
Permissive occupancies	150,600	451,896	1,843,746
Prickly pear leases .. ..	..	70	180,351
Crown leases	40,588	30,836	7,296,465
Homestead farms	18,725	22,032	4,615,366
Homestead selections and grants .. ..	..	..	1,669,680
Suburban holdings	284	201	53,936
Week-end leases	1	1	213
Leases of town lands .. ..	..	1	63
Returned soldiers' special holdings .. ..	..	..	14,619
Irrigation areas	336	66	243,898
<i>Leases, Licences and Permissive Occupancies under Western Lands Act.</i>			
Conditional leases .. ..	..	..	98,754
Leases being issued .. ..	..	..	..
Perpetual leases .. ..	..	1,117,181	48,595,060
Other long-term leases	79,628	101,266	25,550,207
Permissive occupancies	4,126	1,156,298	925,070
Preferential occupation licences .. ..	..	2,342,995	2,354,931
Occupation licences .. ..	..	..	167,899
Total	391,582	5,848,570	111,098,916

(a) Excludes mining leases and permits and forest leases and occupation permits.

3. **Victoria.**—The area of Crown lands occupied under leases and licences in each of the years 1942 to 1944 is given in the following table :—

AREA OF CROWN LANDS OCCUPIED UNDER LEASES AND LICENCES : VICTORIA, 1942 TO 1944.

Particulars.	1942.	1943.	1944.
	Acres.	Acres.	Acres.
Grazing Licences—Other than Mallee	5,807,223	5,811,318	5,766,101
Mallee lands	2,229,093	3,584,382	3,592,125
Auriferous lands (Licences)	18,984	17,603	16,761
Perpetual Leases—Other than Mallee	16,550	16,550	16,550
Mallee lands	71,486	71,486	67,440
Swamp lands (Leases)	3,870	3,870	3,870
Total	8,147,206	9,505,209	9,462,937

4. **Queensland.**—The total area taken up under lease or licence including land in the Dawson Valley Irrigation Area, during each of the years 1942 to 1944 was made up as follows :—

AREA TAKEN UP UNDER LEASE OR LICENCE : QUEENSLAND, 1942 TO 1944.

Particulars.	1942.	1943.	1944.
	Acres.	Acres.	Acres.
Pastoral Leases	7,084,680	1,891,080	7,207,640
Occupation Licences	1,399,720	474,520	683,680
Grazing farms (all classes)	421,861	183,584	73,699
Grazing homesteads (all classes)	309,716	130,179	128,784
Perpetual Lease selections	22,641	25,803	24,624
Perpetual Lease Prickly Pear selections	1,656	998	2,857
Perpetual Lease Prickly Pear Development Selections	2,455	3,411	1,650
Auction Perpetual Leases—Town	46	27	35
Suburban	20	5	4
Country	14	50	85
Special Leases of Crown Land	17,600	18,711	14,508
Leases of Reserves	43,493	42,075	35,317
Forest Grazing Leases	91,640	84,160	81,480
Total	9,395,542	2,854,603	8,254,453

The gross area held under pastoral tenure at the end of 1942, 1943 and 1944 was 398,740, 398,604 and 406,402 square miles respectively.

5. **South Australia.**—The total area leased during 1943–44 (figures for 1942–43 in parenthesis) under the different forms of lease tenure was 3,036,916 (865,238) acres, made up as follows :—Perpetual leases—irrigation and reclaimed lands 1,317 (900) acres, surplus lands 36,646 (9,879) acres, town lands (Whyalla) 3 (2) acres, marginal lands 433,545 (420,283) acres, and other (town lands 43,429 (113,635) acres ; pastoral leases 2,091,699 (806) acres ; and miscellaneous leases—grazing and cultivation 430,277 (319,637) acres.

6. **Western Australia.**—The number of leases issued by the Lands Department during the year ended 30th June, 1944 (figures for year ended 30th June, 1943, in parenthesis) was 82 (96) and the total area of leases issued 1,884,467 (1,651,436) acres, comprising pastoral leases 1,868,261 (1,626,510) acres, special leases (including leases under Section 116 of the Land Act 1933–1939 for grazing purposes) 11,474 (18,488) acres, leases of reserves 4,702 (6,396) acres, and residential leases 29 (42) acres. -

7. **Tasmania.**—The area of pastoral leases issued during 1941–42, 1942–43 and 1943–44 was 149,901, 156,802 and 131,679 acres respectively.

8. **Northern Territory.**—The total area held under lease, licence and permit at 30th June, 1944 (figures at 30th June, 1943, in parenthesis) was 245,175.83 (226,731.38) square miles, comprising pastoral leases 180,400 (178,973) square miles, pastoral permits 696 (696) square miles, grazing licences 61,337.06 (43,841) square miles, agricultural leases 115.21 (113.8) square miles, mission leases, 2,553.63 (3,034.63) square miles, miscellaneous leases 73.38 (72.44) square miles, town lands leases 0.43 (0.43) square miles and occupation licences 0.12 (0.08) square miles. The total annual rentals of these areas were £29,248 (£28,062).

9. **Australian Capital Territory.**—The number of leases granted under the City Area Leases Ordinance 1936–1938 to 30th June, 1943 and 1944 (excluding leases surrendered and determined), was 547 and 557 respectively, representing a capital value of £235,373 and £237,663. There were 13 new leases granted during 1942–43 and 12 during 1943–44.

Fourteen leases have been granted under the Church Lands and Special Purposes Ordinances for church and scholastic purposes. In addition, a lease in perpetuity has been granted under the Church of England Land Ordinance 1926 for church purposes.

§ 6. Leases and Licences under Mining Acts.

1. **General.**—Information regarding the various forms of leases and licences under Mining Acts in the several States and the Northern Territory is given in preceding issues of the Official Year Book (see No. 22, pp. 170–7).

2. **New South Wales.**—The following table gives particulars of operations on Crown lands for the year 1940–41 :—

AREAS TAKEN UP UNDER MINING ACTS : NEW SOUTH WALES, 1940–41.

Purposes for which Issued or Occupied.	Areas Taken up during Year.	Total Areas Occupied at End of Year.
	Acres.	Acres.
Gold-mining	5,320	13,076
Mining for other minerals	26,676	250,870
Authorities to prospect	14,043	10,228
Other purposes	772	9,371
Total	46,811	283,545

The area of land held under lease only on 30th June, 1941, was 273,317 acres and on 31st December, 1944, 299,165 acres.

3. **Victoria.**—During 1944 (1943 in parenthesis) 53 (43) leases, licences, etc. (including 17 (13) for gold-mining) were issued covering an area of 1,755 (976) acres, the rent, fees, etc., for which amounted to £355 (£190). The area occupied at the end of the year was 647,255 (648,256) acres, comprising 25,287 (26,327) acres for gold, 605,335 (605,335)

acres for oil, 13,047 (12,851) acres for coal (including State coal-mine area of 7,575 (7,575) acres, and State Electricity Commission area of 2,800 (2,800) acres) and 3,586 (3,743) acres for miscellaneous purposes.

4. **Queensland.**—During 1943 and 1944, the number of miners' rights issued was 2,018 and 1,786 respectively, and of business licences 6 and 5. The following table gives particulars regarding the areas of lands taken up under lease or licence and the total areas accupied for 1943 and 1944. In addition, an area estimated at 25,000 acres was, at the end of 1943 and 1944, held under miners' rights and dredging claims.

AREAS TAKEN UP UNDER MINING ACTS : QUEENSLAND, 1943 AND 1944.

Particulars.	1943.		1944.	
	Areas Taken up during year.	Total Areas occupied at end of year.	Areas Taken up during year.	Total Areas occupied at end of year.
	Acres.	Acres.	Acres.	Acres.
Gold-mining	77	2,796	69	2,663
Mining for other minerals	235	22,386	864	21,991
Miners' homestead leases	3,563	405,486	8,040	413,402
Petroleum-prospecting permits	344,500	349,500	..	349,500
Mineral oil prospecting areas	1,916	1,276	2,480	2,480
Coal prospecting areas	180	180	4,940	8,880
Total	350,471	781,624	16,393	798,916

The area of land held under lease only at 31st December, 1943 and 1944, was 430,668 and 438,056 acres respectively.

5. **South Australia.**—The following table gives particulars of operations for 1942-43 and 1943-44.

AREAS TAKEN UP UNDER MINING ACTS : SOUTH AUSTRALIA, 1942-43 AND 1943-44.

Particulars.	1942-43.		1943-44.	
	Areas Taken up during year.	Total Areas occupied at end of year.	Areas Taken up during year.	Total Areas occupied at end of year.
	Acres.	Acres.	Acres.	Acres.
Gold-mining leases	20	561	50	421
Mineral and miscellaneous leases	307	61,122	182	58,224
Claims	2,850	8,707	2,243	8,513
Occupation licences	7	37	14	37
Total	3,184	70,427	2,489	67,195

6. **Western Australia.**—The following table gives particulars of operations for 1943 and 1944. The figures exclude holdings under miners' rights and mineral oil licences. Of the areas shown as taken up in 1944 (1943 in parenthesis), the area under lease was 385 (1,276) acres for gold-mining, 8,493 (18) for mining for other minerals, 105 (125) for miners' homesteads, and 68 (45) for miscellaneous—a total of 9,551 (1,464) acres. The balance was taken up under licences.

**AREAS TAKEN UP UNDER MINING ACTS : WESTERN AUSTRALIA,
1943 AND 1944.**

Particulars.	1943.		1944.	
	Areas Taken up during year.	Total Areas occupied at end of year.	Areas Taken up during year.	Total Areas occupied at end of year.
	Acres.	Acres.	Acres.	Acres.
Gold-mining	5,820	25,783	6,513	27,045
Mining for other minerals	3,844	47,574	10,483	41,935
Other purposes	219	37,809	206	38,170
Total	9,883	111,166	17,202	107,150

7. **Tasmania.**—During 1944 (figures for 1943 in parenthesis), the number of leases issued was 63 (90) of which 7 (2) were for gold-mining, covering 171 (55) acres; and 48 (37) for tin-mining, covering 1,096 (1,768) acres. The following table gives particulars for 1943 and 1944 :—

AREAS TAKEN UP UNDER MINING ACTS : TASMANIA, 1943 AND 1944.

Particulars.	1943.		1944.	
	Areas Taken up during year.	Total Areas occupied at end of year.	Areas Taken up during year.	Total Areas occupied at end of year.
	Acres.	Acres.	Acres.	Acres.
Gold-mining	105	914	131	1,948
Mining for other minerals	1,018	15,087	1,096	16,517
Licences to search for coal or oil	900	900	900	1,800
Mining for coal	5	5,922	20	5,942
Other purposes	549	3,335	602	3,785
Total	2,577	26,158	2,749	29,992

8. **Northern Territory.**—At 30th June, 1944 (figures at 30th June, 1943, in parenthesis) there existed 122 (106) mineral leases comprising 2,778 (2,407) acres, and 155 (148) gold-mining leases, comprising 2,856 (2,655) acres. There were also 1 (6) gold prospecting area for 19 (53) acres, 29 (29) mineral prospecting areas for 515 (511) acres, 9 (10) gold claims for 170 (175) acres, 1 (9) mineral claim for 10 (250) acres, 18 (14) machinery and

tailings areas for 59 (53) acres, and other areas held under mining lease amounted to 147 (145) acres. There were 7 dredging lease applications for 1,520 acres in 1942-43 and none in 1943-44.

9. **Summary.**—The following table shows the areas under leases and licences for mining purposes and the total areas occupied for the years 1940 to 1944 :—

CROWN LANDS, LEASES AND LICENCES FOR MINING PURPOSES.

Year.	N.S.W. (a)	Victoria.	Q'land. (b)	S. A 1st. (u)(1)	W. Aust.(c)	Tas. (b)	Total. (d)
AREAS FOR WHICH LEASES AND LICENCES ISSUED DURING YEAR.							
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1940 ..	46,811	510,700	22,089	10,616	44,613	5,993	640,822
1941 ..	(e)	12,799	28,328	3,545	20,563	775	(e)
1942 ..	(e)	130,949	10,124	3,184	12,222	3,287	(e)
1943 ..	(e)	976	350,471	2,489	9,883	2,577	(e)
1944 ..	(e)	1,755	16,393	(e)	17,202	2,749	(e)

TOTAL AREAS OCCUPIED AT END OF YEAR.

1940 ..	283,545	625,165	485,292	71,501	140,129	28,062	1,633,694
1941 ..	(e)	577,446	470,795	70,463	123,573	27,678	(e)
1942 ..	(e)	648,384	446,425	70,427	112,230	25,586	(e)
1943 ..	(e)	648,256	781,624	67,195	111,166	26,158	(e)
1944 ..	(e)	647,255	798,916	(e)	107,150	29,992	(e)

(1) Year ended 30th June following. (b) Excludes lands held under miners' rights only.
(c) Excludes holdings under miners' rights and mineral oil licences. (d) Excludes Northern Territory.
(e) Not available.

§ 7. Closer Settlement.

1. **General.**—Particulars regarding the methods of acquisition and disposal of land for closer settlement in the several States are given in preceding issues of the Official Year Book (see No. 22, pp. 163-9).

2. **New South Wales.**—Since the inception of closer settlement in 1905, 1,854 estates totalling 4,145,032 acres have been purchased by the Crown for purposes of closer settlement of civilians and returned soldiers. The total area set apart and the number of farms made available to 30th June 1943 and 1944, are shown below :—

CLOSER SETTLEMENT AREAS (a) : NEW SOUTH WALES.

To 30th June—	Areas.			Values.		
	Acquired Lands.	Adjoining Crown Lands.	Total.	Cost of Acquired Lands.	Value of Adjoining Crown Lands.	Total.
	Acres.	Acres.	Acres.	£	£	£
1943 ..	4,145,032	205,876	4,350,908	15,107,573	356,824	15,464,397
1944 ..	4,145,032	206,135	4,351,167	15,107,573	357,314	15,464,887

(a) Includes 70 long-term leases resumed for closer settlement, but excludes areas acquired for village sites, 3,665 acres.

The following table gives particulars regarding the disposal of the farms by closer settlement purchase at 30th June, 1943 and 1944 :—

CLOSER SETTLEMENT ALLOTMENTS : NEW SOUTH WALES.

At 30th June—				Farms Allotted to Date.			Total Amount received in respect of Closer Settlement Farms.
				Number.	Area.	Capital Value.	
				No.	Acres.	£	£
1943	..	..	..	9,049	4,125,969	15,007,625	14,068,329
1944	..	..	..	9,078	4,139,932	15,051,477	14,759,675

3. **Victoria.**—The Closer Settlement Commission was abolished as from 31st December, 1938, and land settlement was placed under the control of the Department of Lands and Survey. On 31st March, 1939, all Closer Settlement and Discharged Soldiers' accounts were amalgamated, the settlers' accounts adjusted and the new debt made payable over an extended period. As separate details are not now available, the following statement shows the operations under the provisions of the Closer Settlement Acts to 30th June, 1938 :—

CLOSER SETTLEMENT : VICTORIA.

(INCLUDING IRRIGATED AREAS.)

To 30th June—	How Made Available for Settlement.									
	Total Area Acquired.	Total Cost of Purchases. (a)	Farm Allotments.	Workmen's Homes Allotments.	Agricultural Labourers' Allotments.	Town Allotments. (b)	Roads and Reserves.	Number of Farms, etc.	Total Receipts (Land and Advances).	Repayments of Principal (Land and Advances).
	Acres.	£	Acres.	Acres.	Acres.	Acres.	Acres.	No.	£	£
1938	1,402,568	10,244,023	1,162,676	790	3,484	86,599	14,775	8,722	14,297,492	4,779,268
										1,006

(a) Includes value of Crown Lands taken over. Conditional Purchase Lease.

(b) Includes all land sold other than under

In the foregoing table the area and cost of land acquired for closer settlement purposes include, in addition to 133,128 acres purchased for £1,246,722 and transferred subsequently to discharged soldiers, a total area of 512,757 acres costing £4,125,822 which was purchased originally for the settlement of discharged soldiers.

4. **Queensland.**—Separate records relating to the closer settlement of re-purchased land are no longer kept by the Land Administration Board, and the operations under this heading are now included with "Leases and Licences under Land Acts." The total area acquired to 31st December, 1934, was 970,778 acres, costing £2,292,881. At the same date the area allotted amounted to 915,690 acres distributed over 3,048 selections, consisting of 2,155 agricultural farms, 257 unconditional selections, 544 perpetual lease selections, 9 prickly pear selections, 6 perpetual lease prickly pear selections and 77 settlement farm leases. An area of 13,038 acres was sold by auction.

5. **South Australia.**—The following table shows the area of land acquired for the purposes of closer settlement, and the manner in which it had been dealt with to 30th June, 1943 and 1944 :—

CLOSER SETTLEMENT : SOUTH AUSTRALIA.

To 30th June—	Area of Lands Re- purchased (excluding land afterwards set apart for other purposes).	Agree- ments with Covenants to Purchase.	Total Area Leased as Homestead Blocks.		Perpetual Leases.	Mis- cellaneous Leases.	Sold.	Remainder Un- occupied (including roads and land in course of allotment).
			Right of Purchase.	Perpetual Lease.				
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1943 ..	831,553	417,251	48	1,415	100,679	21,483	282,962	7,715
1944 ..	832,412	393,745	13	1,430	108,093	26,989	298,609	3,533

The total area re-purchased at 30th June, 1944, was 926,955 acres at a cost of £2,889,171. Included in these figures are 64,766 acres purchased for £282,762 and afterwards set apart for discharged soldiers, 3,214 acres reserved for forest and waterworks purposes, the purchase-money being £16,185, and also 26,563 acres of swamp and other lands which were purchased for £111,580 in connexion with reclamation of swamp-lands on the River Murray. Of the total area, 828,878 acres have been allotted to 2,818 persons, the average area to each being 294 acres.

6. **Western Australia.**—The total area acquired for closer settlement up to 30th June, 1943 and 1944, was 905,713 acres, costing £1,180,443. Of this area, 20,972 acres have been set aside for roads, reserves, etc., leaving a balance of 884,741 acres available for selection. Particulars of operations under the Act for the year ended 30th June, 1944 (figures for year ended 30th June, 1943, in parenthesis), are as follows :—Area selected during the year 5,642 (2,738) acres; number of farms, etc., allotted to date 1,666 (1,658); total area occupied to date 783,567 (777,925) acres; balance available for selection 101,174 (106,816) acres; and total revenue £1,103,456 (£1,068,299).

7. **Tasmania.**—Up to 30th June, 1943 and 1944, 37 areas had been opened up for closer settlement, the total purchase-money paid by the Government being £368,210 and the total area acquired amounting to 103,363 acres, including 12,053 acres of Crown Lands. The number of farms occupied at 30th June, 1943 and 1944, was 263 and 255 respectively.

§ 8. Settlement of Returned Soldiers and Sailors.

1. **General.**—Information regarding the methods adopted in each State following the commencement of the War of 1914–19 for providing land for the settlement of returned soldiers and sailors, together with the conditions under which such land could be acquired is given in earlier issues of the Official Year Book (see No. 13, pp. 1016–23, and No. 18, pp. 187–9). Later modifications were made with a view to simplifying procedure and liberalizing the conditions under which holdings may be acquired.

Under the Re-establishment and Employment Act 1945, assented to on 28th June, 1945, the Commonwealth Government may, in accordance with any agreement entered into between the Commonwealth and any State, make advances or payments to a State to enable it to acquire, develop or improve land for the purpose of settlement by discharged members of the Forces; to settle discharged members of the Forces on such land; and for such other purposes relating to the settlement of discharged members of the Forces on land as are prescribed.

Particulars respecting the position of soldier settlement in each State at the latest available date are given in the following paragraphs.

2. **New South Wales.**—At 30th June, 1944 (figures at 30th June, 1943, in parenthesis), the area set apart for soldiers was 9,782,239 (9,769,651) acres, of which 1,721,679 (1,710,272) acres comprised acquired land purchased at a cost of £8,168,084 (£8,113,956). The number of settlers to whom farms, etc., had been allotted up to 30th June, 1944, was 9,751 (9,710). Five thousand, three hundred and seventy-nine (5,338) soldiers have either transferred or abandoned their farms, leaving 4,372 (4,372) in occupation of 6,516,076 (6,530,580) acres, of which 5,221,121 (5,229,665) acres were Crown lands (including 2,990,352 (3,001,243) acres in the Western Division taken up under the Western Lands Act), 1,221,107 (1,226,207) acres acquired lands, and 73,848 (74,708) acres within Irrigation Areas. These totals exclude 703 (703) discharged soldiers who purchased privately-owned land with their own capital and were granted advances for the purchase of stock and plant or for effecting improvements.

3. **Victoria.**—At 30th June, 1938, the area acquired or set apart for soldier settlement was 2,482,286 acres consisting of 1,763,241 acres of private land purchased at a cost of £13,361,266, 133,128 acres costing £1,246,722 taken over from Closer Settlement, and 585,917 acres of Crown lands valued at £447,622. Subsequently 512,757 acres valued at £4,125,822 were transferred to Closer Settlement. Up to 30th June, 1938, the number of settlers to whom farms, etc., had been allotted was 12,126, and the number of farms, etc., allotted was 9,784 (including 955 farms originally purchased for closer settlement purposes) containing 2,365,518 acres. In addition, 802 share farmers and holders of leasing agreements and private land had received assistance. The number of farms, etc., occupied at 30th June, 1938, was 8,426 (including 1,001 originally purchased for closer settlement) containing 1,734,379 acres. Later particulars cannot be given, as separate details are not available.

4. **Queensland.**—At 30th June, 1929, the area acquired or set apart for soldier settlement was 577,633 acres, of which 41,101 acres comprised private land, purchased at a cost of £270,480. The number of farms occupied was 1,148, containing 440,992 acres. Some of these selections were acquired under the ordinary provisions of the Land Act, and do not include areas specially set apart for soldiers.

As special records are not now kept respecting the areas held by discharged soldier settlers later information cannot be given.

5. **South Australia.**—At 30th June, 1944, the area of land acquired or set apart for soldier settlement was 1,336,612 acres, of which 1,202,653 acres comprised private land purchased at a cost of £3,863,572. These figures exclude mortgages discharged, £494,770 on 360,403 acres representing 300 farms, etc., and 314 settlers. The number of soldiers to whom assistance had been granted under the Discharged Soldiers' Settlement Acts up to 30th June, 1944, was 4,165, and the area of farms, etc. (including mortgages discharged), on which assistance had been granted was 2,746,744 acres. At 30th June, 1944, farms, etc., occupied numbered 1,577 containing 1,086,826 acres.

6. **Western Australia.**—At 30th June, 1943 and 1944, the area of land acquired or set apart for soldier settlement was 14,287,643 acres, of which 345,110 acres comprised private land purchased at a cost of £605,076. Up to 30th June, 1944 (figures to 30th June, 1943, in parenthesis), assistance had been given to 5,213 (5,213) returned soldiers, and the Agricultural Bank held 2,809 (2,918) properties as security for advances amounting to £6,752,770 (£6,749,617), including capitalization of interest. The number of farms, etc., occupied by returned soldiers at 30th June, 1944, was 1,145 (1,206).

7. **Tasmania.**—At 30th June, 1944 (figures at 30th June, 1943, in parenthesis) the area acquired or set apart for soldier settlement was 343,557 (343,373) acres, of which 274,193 (274,009) acres comprised private land purchased at a cost of £2,086,018 (£2,084,636). Up to 30th June, 1944 (figures to 30th June, 1943, in parenthesis) the number of settlers to whom farms, etc., had been allotted was 2,380 (2,380) and the number of farms, etc., allotted was 2,204 (2,204) containing 343,557 (343,373) acres. The number of farms, etc., occupied at 30th June, 1944 was 1,142 containing 272,225 acres compared with 1,200 containing 279,158 acres at 30th June, 1943.

8. Losses on Soldier Settlements.—(i) *General.* At the Premiers' Conference in Melbourne in 1917, it was agreed that the States should undertake the work of settling on the land returned soldiers and munition and war workers, and that the Commonwealth should raise the necessary loans for the States for this purpose.

The original arrangement provided that the Commonwealth should take the responsibility of finding up to £500 per settler as working capital for improvements, implements, seed, etc., an amount which was subsequently increased to £625, together with £375 per settler for resumptions and works incidental to land settlement approved by the Commonwealth. Loans were to be advanced to the settlers by the States at reasonable rates of interest not exceeding $3\frac{1}{2}$ per cent. in the first year, increasing by $\frac{1}{2}$ per cent. each subsequent year to the full rate of interest at which the money had been raised, plus working expenses, the difference between these rates and the cost of the money to the Government to be borne equally by the Commonwealth Government and the State Government. This provision respecting interest loss was not ultimately carried out as passed, the Commonwealth Government assuming responsibility for more than one-half of the interest loss, namely, a rebate of interest equal to $2\frac{1}{2}$ per cent. per annum during a period of five years from the date of payment to the State of each instalment of loan money.

(ii) *Report by Mr. Justice Pike.* In addition to this expected loss of interest other losses occurred in connexion with soldier settlement, and in 1927 Mr. Justice Pike, of the Land Valuation Court of New South Wales, was commissioned to report, not only on the losses, but on the principles on which financial responsibility should be divided. His report in 1929, to which reference should be made for fuller information, found that in all the negotiations concerning soldier settlement on the land the States insisted on undivided control, and that financial responsibility went along with control except so far as the Commonwealth definitely promised to give assistance. The undertaking of the Commonwealth to share equally with the States the cost of lower interest rates to soldier settlers was made the basis of a practical compromise, and the report recommended that the total loss should be shared equally between the two parties.

The gross losses were assessed at £23,525,522 distributed amongst the States as follows:—New South Wales, £7,003,950; Victoria, £7,721,891; Queensland, £1,853,315; South Australia, £3,565,829; Western Australia, £2,059,368; and Tasmania, £1,321,169. Other concessions granted by the Commonwealth Government increased its proportion of the losses to £12,333,000.

§ 9. Tenure of Land by Aliens.

Information regarding the terms and conditions under which land can be held by aliens is contained in earlier issues of the Official Year Book (see No. 18, pp. 190–1). All tenure of land by aliens is now subject to the following regulations:—National Security (Land Transfer) Regulations 1940; National Security (Economic Organization) Regulations, 1942.

§ 10. Advances to Settlers.

1. General.—A detailed statement regarding the terms and conditions governing advances to settlers in the several States and the Northern Territory appears in preceding issues of the Official Year Book (see No. 22, pp. 179–186).

In this section are summarized the loans and advances made by the various Government lending agencies in the States, including the transactions in lands acquired under closer and soldier settlement schemes. The balances owing on former Crown lands sold on the conditional purchase, etc., system, however, are not included.

The amounts outstanding do not represent the actual differences between the total advances and settlers' repayments, for considerable remissions of indebtedness have been made in all States as a result of reappraisements of land values and the writing down of debts.

2. New South Wales.—The following table gives particulars respecting advances, etc., under State Authorities to 30th June, 1944 :—

ADVANCES TO SETTLERS : NEW SOUTH WALES.

Advances.	Advances made during 1943-44.	Total Advances at 30th June, 1944.	Amount outstanding at 30th June, 1944.	
			Number of Loans Current.	£
Department of Lands—	£	£		
Closer Land Settlement		15,112,982	8,192	10,186,716
Soldier Settlers		23,196,005	1,746	751,866
Wire Netting		1,494,650	3,048	319,214
Prickly Pear	4,008	150,566	497	13,990
Rural Bank—				
Rural Bank Department	637,285	37,717,040	13,537	13,483,934
Government Agency Department—				
Necessitous Farmers	125,174	7,079,557	2,985	1,226,750
Unemployment Relief and Dairy Promotion	14,309	1,383,261	3,359	584,167
Rural Reconstruction (b)	553,528	6,839,626	3,743	3,262,465
Shallow Boring	3,580	882,236	937	247,525
Irrigation Areas	49,312	(c)	(c)	1,404,117
Government Guarantee Agency	10,804	51,876	12	6,051
Closer Settlement Agency		166,826	123	166,944
Total	1,398,000	74,074,625 (d)	38,179	31,653,739

(a) In addition, the sum of £1,992,164 has been expended on developmental works on soldiers' settlements.

(b) Includes Debt Adjustment, Drought Relief, and Marginal Wheat Areas Scheme, Advances (Commonwealth Monies); amount outstanding £2,453,023.

(c) Not available.

(d) Incomplete.

3. Victoria.—The following table gives particulars respecting advances, etc., under State Authorities to 30th June, 1944 :—

ADVANCES TO SETTLERS : VICTORIA.

Advances.	Advances made during 1943-44.	Total Advances at 30th June, 1944.	Amount outstanding at 30th June, 1944.	
			Number of Persons.	£
Credit Foncier—	£	£		
Civilians	33,183	11,136,771	3,416	3,203,439
Discharged Soldiers	467	845,964	288	233,060
Treasurer—				
Cool Stores, Canneries, etc.	69,000	686,282	(a) 11	144,111
Department of Lands and Survey—				
Closer Settlement Settlers and Soldier Settlers		(c)		(b)
Cultivators of Land	3,646	46,904,855	8,632	10,932,063
Wire Netting	60	2,231,037	1,082	148,877
		569,572	2,170	137,410
Total	106,356	62,375,081	15,599	14,798,960

(a) Companies and Co-operative Societies.

(b) Includes arrears of principal and interest, but excludes amounts written off debts and adjustments for revaluations.

(c) Represents consolidated debts of settlers (Section 30, Act 4091).

4. **Queensland.**—The following table gives particulars of advances to 30th June, 1944. The figures exclude transactions in land.

ADVANCES TO SETTLERS : QUEENSLAND.

Advances.	Advances made during 1943-44.	Total Advances at 30th June, 1944.	Amount outstanding at 30th June, 1944.	
			Number of Persons.	£
	£	£		
Bureau of Rural Development ..	124,258	8,972,312	3,589	1,389,151
Discharged Soldiers' Settlement (a) ..	3,545	2,463,186	1,125	327,462
Water Facilities .. .. .	..	58,079	205	17,838
Wire Netting, etc. .. .. .	..	1,019,289	2,678	306,056
Seed Wheat and Barley	668	(b) 124,198	(c)	13,385
Drought Relief .. .. .	..	294,458	(c)	66,438
Income (Unemployment Relief and State Development) Tax Acts (d) ..	19,570	1,198,442	4,162	470,587
Irrigation .. .. .	..	54,914	110	22,520
Farmers' Assistance (Debt Adjustment Acts)	26,993	847,022	509	655,558
Total	175,034	15,031,900	(c) 12,378	3,268,995

(a) Includes advances to group settlers through the Lands Department, as well as advances through the Bureau of Rural Development. (b) Includes accrued interest. (c) Not available. (d) Largely for rural development (ringbarking, clearing, fencing, etc.). (e) Incomplete.

5. **South Australia.**—The following table gives particulars respecting advances, etc., under State Authorities to 30th June, 1944 :—

ADVANCES TO SETTLERS : SOUTH AUSTRALIA.

Advances.	Advances made during 1943-44.	Total Advances at 30th June, 1944.	Amount outstanding at 30th June, 1944.		Arrears of Interest at 30th June, 1944.
			Number of Persons.	£	
Department of Lands—	£	£			£
Advances to soldier settlers ..	14,013	4,442,734	916	2,324,449	166,876
Advances to blockholders ..	..	41,451	..	..	..
Advances for sheds and tanks ..	..	75,693	174	17,523	2,201
Advances under Closer Settlement Acts	27,830	2,508,943	1,195	1,292,743	35,775
Advances under Agricultural Graduates Settlement Act .. .. .	..	57,309	31	48,095	1,899
Farmers Assistance Board—					
Advances in drought-affected areas ..	..	2,146,768	611	222,212	44,014
Advances under Farmers Relief Acts	15,783	4,362,843	442	132,465	6,336
Irrigation Branch—					
Advances to civilians	1,890	284,601	375	85,553	18,729
Advances to soldier settlers ..	1,640	1,037,506	661	814,119	125,348
State Bank of South Australia (C. F. Department)	40,938	5,230,405	1,201	645,998	6,247
Advances to Primary Producers ..	7,327	1,056,728	367	821,009	1,323
Advances to settlers for improvements	1,370	1,035,093	942	140,240	17,215
Advances under Vermin and Fencing Acts	480	1,375,241	2,940	252,977	15,616
Advances under Loans to Producers Act	12,512	332,122	154	210,008	1,906
Total	123,783	23,987,437	10,009	7,007,391	443,485

6. Western Australia.—The following table gives particulars respecting advances etc., under State Authorities to 30th June, 1944 :—

ADVANCES TO SETTLERS : WESTERN AUSTRALIA.

Advances.	Advances made during 1943-44.	Total Advances at 30th June, 1944.	Amount outstanding at 30th June, 1944.		Arrears of Interest at 30th June, 1944.
			Number of Persons.	£	
	£	£			£
Development loans ..	20,349	10,437,826	5,560	4,533,335	473,527
Soldier settlement loans ..	..	26,104,563	2,809	3,436,635	284,626
Cropping advances ..	24,705	14,367,191 ^b	412	44,479	4,535
Group Settlement Advances Repurchased Estates—	2,876	6,293,437	1,637	1,228,763	38,251
Under A.L.P. Act 1909 ..	..	575,368	320	17,911	8,623
Soldier Settlement ..	..	605,076	774	34,222	16,818
Wire and Wire-netting Advances ..	89	513,648	2,350	360,275	43,708
Total	48,019	38,897,109	13,862	9,655,620	870,088

(a) Includes capitalization of interest to principal. (b) Includes all advances made under Drought Relief Assistance and losses incurred.

7. Tasmania.—The following table gives particulars respecting advances under State Authorities to 30th June, 1944. Although not regarded as outstanding advances by the State Authority the figures in connexion with closer and soldier land settlement have been included in the table for comparative purposes; the areas so purchased have been leased on 99 year terms having an option of purchase which the leaseholder may exercise at any time.

ADVANCES TO SETTLERS : TASMANIA.

Advances.	Advances made during 1943-44.	Total Advances at 30th June, 1944.	Amount outstanding at 30th June, 1944.	
			Number of Persons.	£
Agricultural Bank—	£	£		
State Advances Act and Rural Credits	152,745	1,440,046	684	217,894
Orchardists' Relief, 1926 .. ..	..	46,832	15	978
Unemployed (Assistance to Primary Producers) Relief Act 1930-1931 ..	..	114,302	390	13,121
Bush Fire Relief Act 1934 .. ..	..	14,855	38	1,157
Flood Sufferers' Relief Act 1929 ..	..	35,523	37	3,270
Crop Losses, 1934-35 .. ..	..	10,086	38	1,022
Assistance to Fruitgrowers Act 1941	..	34,556	340	26,280
Flood Sufferers' Relief Act, 1942 ..	..	3,764	24	3,077
Minister for Agriculture—				
Soldier Settlers—				
Advances	2,989	852,331	277	32,222
Purchase of Estates, etc. (c) ..	4,480	2,504,411	(d) 1,142	968,771
Closer Settlers—				
Advances	10	91,885	63	12,768
Purchase of Estates, etc. (c) ..	2,612	510,467	(d) 222	264,365
Total	162,845	5,659,058	3,270	1,544,925

(a) Excludes £43,510 forfeited properties, and £1,616 written off under revaluation legislation.

(b) Excludes £107,682 advances capitalized, £79,114 advances written off to bad debts, and £38,004 written off to revaluation. (c) Not regarded as outstanding advances by the State. (d) Number of leaseholders including those to whom advances have been made.

8. **Northern Territory.**—During the financial year 1943-44 no advance was made. The total amount advanced to 30th June, 1944, was £25,549 (approximately). The balance outstanding from 22 settlers, at 30th June, 1944, including interest, was £3,232.

9. **Summary of Advances.**—The following table gives a summary for each State and the Northern Territory to the 30th June, 1944. With the exception of Queensland, where the figures are incomplete, the particulars so far as they are available represent the total sums advanced to settlers including amounts spent by the various Governments in the purchase and improvement of estates disposed of by closer and soldier land settlement, while the amounts outstanding reveal the present indebtedness of settlers to the Governments, including arrears of principal and interest but excluding amounts written off debts and adjustments for land revaluations.

ADVANCES TO SETTLERS : AUSTRALIA.

State.	Advances made during—		Total Advances at 30th June, 1944.	Amount outstanding at 30th June, 1944.	
	1942-43.	1943-44.		Number of Persons.	£
	£	£	£		
New South Wales ..	1,162,765	1,398,000	74,074,625	38,179	31,653,739
Victoria ..	24,206	106,356	62,375,081	15,599	14,798,960
Queensland ..	172,291	175,934	15,031,900	12,378	3,268,995
South Australia ..	108,434	123,783	23,987,437	10,009	7,007,391
Western Anstralia ..	72,616	48,019	38,897,109	13,862	9,655,620
Tasmania ..	143,576	162,845	5,659,058	3,270	1,544,925
Northern Territory ..	505	..	25,549	22	3,232
Total ..	1,684,393	2,014,937	220,050,759	93,319	67,932,862

§ 11. Alienation and Occupation of Crown Lands.

1. **General.**—The figures given in the previous parts of this chapter show separately the areas alienated, in process of alienation, or occupied under various tenures. The following tables set out in summarized form the position in regard to the tenure of land in each State, in the Northern Territory, and in the Australian Capital Territory during the latest year for which information is available. Particulars for each year from 1933 onward appear in *Production Bulletin*, No. 37, Part II., page 7. The area unoccupied includes roads, permanent reserves, forests, etc. In some cases, lands which are permanently reserved from alienation are occupied under leases and licences, and have been included therein. Lands occupied under leases or licences for pastoral purposes are frequently held on short tenures only, and could thus be made available for settlement practically whenever required.

2. **New South Wales.**—The total area of New South Wales is 198,037,100 acres of which 25.9 per cent. had been alienated at 30th June, 1944, 8.6 per cent. was in process of alienation, 57.4 per cent. was held under leases and licences and the remaining 8.1 per cent. was unoccupied or held by the Crown.

The following table gives particulars as at 30th June, 1944 :—

**ALIENATION AND OCCUPATION OF CROWN LANDS : NEW SOUTH WALES.
30th JUNE, 1944.**

Particulars.	Acres.	Particulars.	Acres.
1. Alienated.		3. Held under Leases and Licences.	
Granted and sold prior to 1862 ..	7,146,579	Homestead selections and grants ..	1,669,680
Sold by auction and other sales, 1862 to date ..	15,155,541	Alienable leases, long-term and perpetual ..	26,577,137
Conditionally sold, 1862 to date ..	31,222,952	Other long-term leases ..	75,597,623
Granted under Volunteer Land Regulations, 1867 to date ..	172,198	Short-term leases and temporary tenures ..	7,287,441
Granted for public and religious purposes ..	262,298	Forest leases and occupation permits ..	2,385,452
	53,959,568	Mining leases and permits (a) ..	211,204
Less lands resumed or reverted to Crown ..	2,752,001		
Total	51,207,567	Total	113,728,537
2. In Process of Alienation.		4. Unoccupied (b)—Particulars of Lord Howe Island not being available the area, 3,220 acres, is included under unoccupied, (Approximate)	
Conditional purchases ..	13,693,600		15,991,599
Closer settlement purchases ..	2,871,231		
Soldiers' group purchases ..	395,809		
Other forms of sale ..	148,757		
Total	17,109,397		

Area of State—198,037,100 acres.

(a) At 31st December, 1943. (b) Of this area only 3,234,667 acres are available for selection, the balance being reservations for roads, various public purposes, water frontages, and river and lake surfaces.

3. **Victoria.**—The total area of Victoria is 56,245,800 acres, of which 51.2 per cent. had been alienated up to the end of 1943; 7.6 per cent. was in process of alienation under deferred payments and closer settlement schemes; 18.1 per cent. was occupied under leases and licences; and 23.1 per cent. was unoccupied or held by the Crown.

The following table shows the distribution :—

**ALIENATION AND OCCUPATION OF CROWN LANDS : VICTORIA,
31st DECEMBER, 1943.**

Particulars.	Acres.	Particulars.	Acres.
1. Alienated	28,795,025	3. Leases and Licences held—	
2. In Process of Alienation—		Under Lands Department—	
Exclusive of Mallee and Closer Settlement Lands ..	641,730	Perpetual Leases ..	88,036
Mallee Lands (exclusive of Closer Settlement Lands) ..	3,004,991	Other Leases and Licences ..	21,473
Closer Settlement Lands ..	634,282	Temporary (Yearly) Grazing Licences ..	9,395,700
Village Settlements ..	37	Under Mines Department ..	648,256
		Total	10,153,465
Total	4,281,040	4. Occupied by the Crown or Unoccupied	13,016,270

Total area of State—56,245,800 acres.

4. **Queensland.**—The total area of this State is 429,120,000 acres, of which, on 31st December, 1943, 5.1 per cent. was alienated; 1.4 per cent. was in process of alienation; and 80.6 per cent. was occupied under leases and licences. The remainder, 12.9 per cent., was either unoccupied or held as reserves or for roads.

The distribution is shown in the following table:—

**ALIENATION AND OCCUPATION OF CROWN LANDS: QUEENSLAND,
31st DECEMBER, 1943.**

Particulars.	Acres.	Particulars.	Acres.
1. <i>Alienated</i> —		3. <i>Occupied under Leases and Licences</i> —	
By Purchase	21,688,214	Pastoral Leases	244,050,880
Without Payment	92,099	Occupation Licences	9,146,880
		Grazing Selections and Settlement Farm Leases	83,080,187
		Leases—Special Purposes	(a) 969,088
		Under Mines Department	439,181
		Perpetual Lease Selections and Perpetual Lease Prickly Pear Selections	6,332,918
		Auction Perpetual Leases, etc.	28,476
		Prickly Pear Leases	23,960
		Forest Grazing Leases (or Reserves)	1,884,800
Total	21,780,313	Total	345,956,370
		4. <i>Reserves (Net, not leased), Surveyed Roads and Surveyed Stock Routes</i>	19,321,918
2. <i>In Process of Alienation</i>	6,034,376	5. <i>Unoccupied</i>	36,027,023

Total area of State—429,120,000 acres.

(a) *Special leases of Crown Land, 471,215 acres; special leases of Reserves, 497,873 acres.

5. **South Australia.**—The area of South Australia is 243,244,800 acres and at 30th June, 1944, 5.3 per cent. was alienated; 0.5 per cent. in process of alienation; 54.6 per cent. occupied under leases and licences; and 39.6 per cent. unoccupied or occupied by the Crown.

The subjoined table shows the distribution:—

**ALIENATION AND OCCUPATION OF CROWN LANDS: SOUTH AUSTRALIA,
30th JUNE, 1944.**

Particulars.	Acres.	Particulars.	Acres.
1. <i>Alienated</i> —		3. <i>Held under Lease and Licence</i> —	
Sold	12,729,364	Right of Purchase Leases	204,146
Granted for Public Purposes	134,614	Perpetual Leases, including Irrigation Leases	16,726,719
		Pastoral Leases	112,895,742
		Other Leases and Licences	3,101,266
		Mining Leases and Licences	67,195
Total	12,863,978	Total	132,995,068
		4. <i>Area Unoccupied (a)</i>	96,272,190
2. <i>In process of Alienation</i>	1,113,564		

Total area of State—243,244,800 acres.

(a) Includes surveyed roads, railways and other reserves, salt water lakes, lagoons, and fresh water lakes.

6. **Western Australia.**—The total area of Western Australia is 624,588,800 acres, of which, at 30th June, 1944, 3.0 per cent. was alienated; 2.0 per cent. was in process of alienation; and 34.1 per cent. was occupied under leases and licences issued either by the Lands or the Mines Departments. The balance of 60.9 per cent. was unoccupied.

The following table shows the distribution :—

**ALIENATION AND OCCUPATION OF CROWN LANDS : WESTERN AUSTRALIA,
30th JUNE, 1944.**

Particulars.	Acres.	Particulars.	Acres.
1. <i>Alienated</i>	18,945,832	3. <i>Leases and Licences in Force—</i>	
2. <i>In process of Alienation—</i>		(i) Issued by Lands Department—	
Midland Railway Concessions	54,800	Pastoral Leases ..	207,657,215
Free Homestead Farms ..	543,711	Special Leases ..	966,342
Conditional Purchases ..	5,117,184	Leases of Reserves ..	1,287,178
Selections from the late W. A. Company	5,297	Residential Lots ..	5,203
Selections under the Agricultural Lands Purchase Act	450,596	(ii) Issued by Mines Department—	
Homestead or Grazing Leases	6,487,129	Gold-mining Leases ..	21,308
Poison Land Leases or Licences	14,742	Mineral Leases ..	38,457
Town and Suburban Lots ..	2,670	Miners' Homestead Leases ..	30,328
		(iii) Issued by Forests Department—	
		Timber Permits ..	2,690,330
		Total	212,696,361
Total	12,676,129	4. <i>Area Unoccupied (a)</i> ..	380,270,478

Total area of State—624,588,800 acres.

(a) Includes reservations for roads and various public purposes, 49 655,866 acres.

7. *Tasmania.*—The total area of Tasmania is 16,778,000 acres, of which, at 31st December, 1943, 35.6 per cent. had been alienated; 2.4 per cent. was in process of alienation; 16.8 per cent. was occupied under leases and licences for either pastoral, agricultural, timber, or mining purposes, or for closer or soldier settlement; while the remainder (45.2 per cent.) was unoccupied or reserved by the Crown.

The following table shows the distribution :—

**ALIENATION AND OCCUPATION OF CROWN LANDS : TASMANIA,
31st DECEMBER, 1943.**

Particulars.	Acres.	Particulars.	Acres.
1. <i>Alienated</i>	5,975,699	3. <i>Leases and Licences—continued.</i>	
2. <i>In Process of Alienation</i> ..	399,757	(i) Issued by Lands Department— <i>continued.</i>	
3. <i>Leases and Licences—</i>		Soldier Settlement ..	106,000
(i) Issued by Lands Department—		Short-Term Leases ..	131,000
Islands ..	169,520	Other .. .. .	..
Ordinary Leased Land ..	1,971,941	(ii) Issued by Mines Department ..	2,570
Land Leased for Timber	355,680	Total	2,816,711
Closer Settlement ..	80,000	4. <i>Area Occupied by the Crown or Unoccupied (a)</i> ..	7,585,833

Total area of State—16,778,000 acres.

(a) Includes reservations for roads and various public purposes, 2,827,592 acres.

8. *Northern Territory.*—The area of the Northern Territory is 335,116,800 acres, of which, at 30th June, 1944, only 0.1 per cent. was alienated; 46.8 per cent. was held under leases and licences; 13.2 per cent. was reserved for aboriginal, defence and public requirements; and the remaining 39.9 per cent. was unoccupied.

The following shows the mode of occupancy of areas at 30th June, 1944 :—

ALIENATION AND OCCUPATION OF CROWN LANDS : NORTHERN TERRITORY, 30th JUNE, 1944.

	Particulars.	Acres.
1. Alienated	477,595
2. Leased—		
Pastoral Leases	115,456,000
Other leases, licences and mission stations	41,456,536
Total	156,912,536
3. Reserves—		
Aboriginal, defence and public requirements	44,324,152
4. Unoccupied and Unreserved	133,402,517
5. Total area	335,116,800

9. **Australian Capital Territory.**—Particulars of the alienation and occupation of Crown lands in the Territory (excluding Jervis Bay area) for 1943 are as follows :— Alienated 56,300 acres ; in process of alienation 50,500 acres ; land leased for grazing, agriculture, etc., 313,900 acres ; land otherwise occupied including City Area Tenures, 29,350 acres ; and unoccupied, 132,750 acres. The area of acquired lands was 213,878 acres. The total area of the Territory (excluding Jervis Bay area, 18,000 acres) is approximately 582,800 acres.

Alienated land at the end of 1943 comprised 9.4 per cent. of the total area, land in process of alienation 8.4 per cent., land held under lease 59.1 per cent., and unoccupied land 23.1 per cent. of the total area.

10. **Summary.**—The following table gives a summary for each State and Territory of the alienation and occupation of Crown lands :—

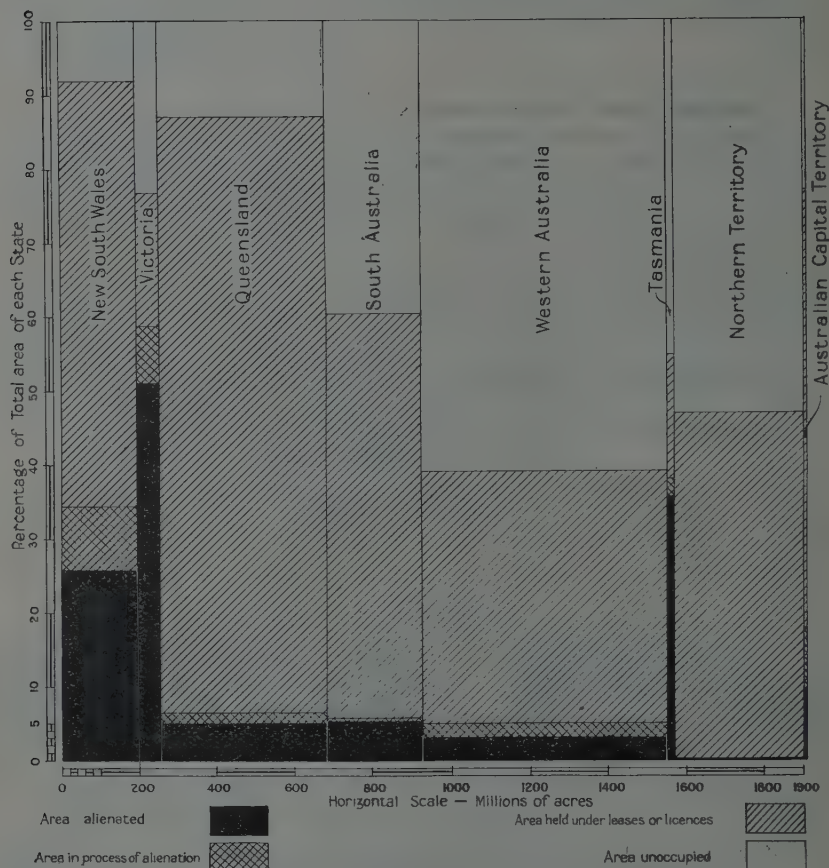
ALIENATION AND OCCUPATION OF CROWN LANDS : AUSTRALIA, 31st DECEMBER, 1942 AND 1943.

State or Territory.	Private Lands.				Crown Lands.				Total Area.
	Alienated.		In Process of Alienation.		Leased or Licensed.		Other.		
	Acres.	%	Acres.	%	Acres.	%	Acres.	%	
31st December, 1942.									
N.S.W. (a)	51,053,831	25.78	17,300,790	8.74	114,005,615	57.57	15,676,864	7.91	198,037,100
Vic. ..	28,626,602	50.89	4,430,877	7.88	8,795,590	15.64	14,392,731	25.59	56,245,800
Qld. ..	21,608,995	5.04	6,211,140	1.45	345,929,920	80.61	55,369,945	12.90	429,120,000
S. Aust.(a)	12,772,044	5.25	1,255,362	0.52	130,764,392	53.76	98,453,002	40.47	243,244,800
W. Aust.(a)	18,696,234	3.00	12,961,375	2.07	112,038,518	33.95	380,802,673	60.98	624,588,800
Tas. ..	5,958,103	35.51	402,969	2.40	2,750,125	16.39	7,666,803	45.70	16,778,000
N.T.(a) ..	477,594	0.14	..	..	145,108,160	43.30	189,531,046	56.56	335,116,800
A.C.T. ..	56,260	9.36	50,676	8.44	322,149	53.62	171,715	28.58	600,800
Aust. ..	139,249,663	7.32	42,613,189	2.24	959,714,469	50.41	762,154,779	40.03	1,903,732,100
31st December, 1943.									
N.S.W. (a)	51,207,507	25.80	17,109,397	8.64	113,728,537	57.43	15,991,599	8.07	198,037,100
Vic. ..	28,795,025	51.20	4,281,040	7.61	10,153,465	18.05	13,016,270	23.14	56,245,800
Qld. ..	21,780,313	5.07	6,034,376	1.41	345,956,370	80.62	55,348,941	12.90	429,120,000
S. Aust.(a)	12,863,978	5.29	1,113,564	0.46	132,995,068	54.07	96,272,190	39.58	243,244,800
W. Aust.(a)	18,915,832	3.03	12,670,129	2.03	112,690,161	34.05	380,270,178	60.89	624,588,800
Tas. ..	5,975,699	35.62	399,757	2.38	2,816,711	16.79	7,585,833	45.21	16,778,000
N.T.(a) ..	477,595	0.14	..	..	156,912,536	46.83	177,726,669	53.03	335,116,800
A.C.T. ..	56,300	9.37	50,500	8.40	355,018	59.10	138,062	23.13	600,800
Aust. ..	140,102,309	7.36	41,664,763	2.18	975,614,086	51.25	746,350,942	39.21	1,903,732,100

(a) At 30th June year following.

11. Diagram showing Condition of Public Estate.—The following diagram shows the condition of the public estate at 31st December, 1943. The square itself represents the total area of Australia, while the relative areas of individual States are shown by the vertical rectangles. The areas alienated from the State; those in process of alienation under various systems of deferred payments; and the areas held under leases or licences are indicated by the differently-shaded areas as described in the reference given below the diagram, and the areas unoccupied are left unshaded.

TENURE OF LAND



CHAPTER V. TRANSPORT AND COMMUNICATION.

A. SHIPPING.

§ 1. System of Record.

In the system of recording statistics of oversea shipping Australia is considered as a unit, and, therefore, only one entry and one clearance is counted for each voyage, without regard to the number of States visited.

On the arrival at, or departure from, a port in Australia, whether from or for an oversea country or from another port in Australia, the master or agent must "enter" the vessel with the Customs authorities at the port, and supply certain prescribed information in regard to the ship, passengers and cargo. At the end of each month the information so obtained is forwarded to this Bureau. Similar documents furnish information regarding oversea migration and interstate migration by sea. This arrangement has been in operation since 1st July, 1924.

From 1st July, 1914, the Trade and Shipping of Australia have been recorded for the fiscal years ending 30th June.

In the following tables, commencing with 1935-36, particulars of sailing vessels with auxiliary engines previously included in the columns headed "Steam", have been included in those headed "Sailing", this classification being considered more correct as the main method of propulsion of these vessels is sail.

The outbreak of war with Japan in December, 1941, resulted in Australia becoming the land base of operations in the South-West Pacific Area.

The outcome of this action was the transport by sea to Australia of large numbers of Allied troops with huge quantities of arms and equipment, munitions and stores which resulted in a substantial increase in the volume of shipping in ports throughout Australia.

Particulars regarding these vessels have been excluded from the following tables of "oversea" and "interstate" shipping movement except in Section 3, paragraph 1.

The published tables, therefore (except Section 3, paragraph 1), relate primarily to vessels engaged in normal trade (i.e. carrying part or full cargo for civil purposes), and are strictly comparable with pre-war figures.

The total volume of all shipping including vessels carrying troops and war supplies which entered the principal ports of Australia during the years 1941-42 to 1943-44 is shown in Section 3, paragraph 1. These particulars were compiled from information supplied by the State authorities controlling ports and harbours and include all vessels entering ports with the exception of warships.

As a result of enemy activity the Customs Officers were withdrawn from the ports of Thursday Island (Queensland), Broome (Western Australia) and Darwin (Northern Territory) during February, March and April, 1942, respectively, and the ports closed as Customs Stations. Consequently no particulars are available of shipping movements at these ports between the dates named and June, 1945, as they were still under the control of the defence authorities. Shipping in these ports during this period was predominantly military and naval in character. The port of Darwin (Northern Territory) was reopened as a customs station in July, 1945.

§ 2. Oversea Shipping.

1. **Total Movement.**—The following table gives the number and net tonnage of oversea steam and motor vessels and sailing vessels which entered Australian ports during the years 1933-34 to 1943-44 :—

OVERSEA SHIPPING : VESSELS ENTERED, AUSTRALIA.

Year.	Steam and Motor.		Sailing.		Total.	
	Vessels.	Net Tons.	Vessels.	Net Tons.	Vessels.	Net Tons.
1933-34	1,356	5,308,584	24	43,987	1,380	5,352,571
1934-35	1,559	5,951,226	23	43,024	1,582	5,994,250
1935-36	1,550	6,199,583	(a) 65	(a) 38,093	1,615	6,237,676
1936-37	1,542	6,245,767	25	28,423	1,641	6,274,196
1937-38	1,800	7,096,656	105	31,748	1,905	7,128,404
1938-39	1,725	6,684,031	151	26,968	1,876	6,710,999
1939-40	1,573	6,458,963	101	6,702	1,674	6,465,665
1940-41	1,260	5,372,381	56	6,540	1,316	5,378,921
1941-42	1,248	5,166,100	28	8,018	1,276	5,174,118
1942-43	943	3,820,337	13	4,152	956	3,824,489
1943-44	1,085	4,482,135	9	1,393	1,094	4,483,528

(a) See § 1 above.

The average tonnage per vessel entered has risen from 3,879 tons per vessel in 1933-34 to 4,131 tons in 1943-44.

Particulars regarding the total oversea movement of shipping for each year from 1822 to 1920-21 will be found in Official Year Book No. 15, p. 507, for each year from 1921-22 to 1930-31 in Official Year Book No. 25, p. 189, and for each of the years 1931-32 and 1932-33 in Official Year Book No. 34, p. 81.

2. **Total Oversea Shipping, States.**—The following table gives the numbers and net tonnages of vessels which entered and cleared the various States direct from and to oversea countries during the year 1943-44 :—

SHIPPING ENTERED FROM AND CLEARED TO OVERSEA COUNTRIES DIRECT, 1943-44.

State or Territory.	Entered.		Cleared.	
	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.
New South Wales	370	1,560,981	420	1,705,421
Victoria	178	729,374	159	688,874
Queensland	287	992,731	393	1,479,071
South Australia	71	249,842	85	300,523
Western Australia	167	813,500	220	963,898
Tasmania	21	137,100	9	65,464
Northern Territory(a) .. ..	..	..	..	..
Total	1,094	4,483,528	1,286	5,203,251

(a) Port of Darwin closed.

Comparable figures of shipping entered for each of the years 1939-40 to 1942-43 may be found in *Transport and Communication Bulletin* Nos. 34 and 35.

3. **Shipping Communication with various Countries.**—Records of the number and tonnage of vessels arriving from and departing to particular countries, as they are invariably made, may be misleading for the reason that the tonnage of a vessel can be recorded against one country only, notwithstanding that the same vessel on the same voyage may carry cargo or passengers to or from Australia from or to several countries. For instance, a mail steamer on a voyage from the United Kingdom to Australia, through the Suez Canal, may call at Marseilles, Genoa, Port Said, Aden and Colombo, yet can be credited only to the United Kingdom, the country where the voyage commenced, to the exclusion of all of the others from the records. Also a number of vessels touch at New Zealand ports on their voyages to and from the United States of America and Canada, but their tonnages are not included in the records of Australian shipping trade with New Zealand. Similarly, the record of shipping engaged in trade between Australia and the United Kingdom via South African ports does not show tonnage to and from South Africa, the whole of it being included in the figures for United Kingdom. In view of this defect, statistics relating to the direction of the shipping to and from Australia are restricted to the following tables in which countries situated on the main trade routes are grouped together. This grouping into larger geographical divisions to some extent avoids the limitations referred to, except, as already pointed out, in the case of Africa and New Zealand.

DIRECTION OF OVERSEA SHIPPING : AUSTRALIA.

Countries.	Cargo and Ballast.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.
NET TONNAGE ENTERED.						
United Kingdom and European Countries	Cargo	1,382,981	738,373	473,337	355,540	328,095
	Ballast	101,273	77,266	47,445	5,912	2,837
New Zealand	Cargo	823,686	441,203	262,498	257,682	181,010
	Ballast	193,147	163,926	122,861	76,874	151,907
Asiatic Countries and Pacific Islands	Cargo	2,298,174	2,247,744	2,656,251	1,270,764	1,239,034
	Ballast	355,072	636,007	231,156	142,102	664,665
Africa	Cargo	86,856	127,191	374,539	457,442	235,940
	Ballast	170,596	200,398	90,911	48,137	28,732
North and Central America	Cargo	1,011,567	713,370	842,845	1,094,808	1,505,341
	Ballast	36,095	18,702	40,658	4,380	31,659
South America	Cargo	6,218	14,741	31,617	104,842	113,108
	Ballast	..	..	..	..	..
Total	Cargo	5,000,482	4,282,622	4,641,087	3,547,084	3,603,728
	Ballast	850,183	1,096,209	533,031	277,405	870,800
	..	6,465,665	5,378,921	5,174,118	3,824,489	4,483,528
NET TONNAGE CLEARED.						
United Kingdom and European Countries	Cargo	2,315,273	1,284,973	983,571	773,887	700,696
	Ballast	45,409	23,282	44,277	17,015	4,250
New Zealand	Cargo	780,096	484,438	420,069	325,777	307,507
	Ballast	63,576	43,504	114,437	49,087	24,190
Asiatic Countries and Pacific Islands	Cargo	1,632,062	2,008,452	1,763,688	1,239,219	1,914,834
	Ballast	784,231	649,376	731,980	241,438	169,984
Africa	Cargo	290,349	820,573	427,260	290,090	306,231
	Ballast	139,417	3,441	69,131	20,170	21,495
North and Central America	Cargo	509,914	547,017	860,824	771,051	1,903,269
	Ballast	34,738	11,532	105,359	391,103	573,050
South America	Cargo	5,976	2,838	34,598	72,399	37,822
	Ballast	8,920	..	38,692	90,908	49,008
Total	Cargo	5,533,670	5,148,291	4,490,010	3,472,423	4,360,359
	Ballast	1,076,291	741,135	1,103,876	816,321	842,892
	..	6,609,961	5,889,426	5,593,886	4,288,744	5,203,351

4. **Nationality of Oversea Shipping.**—Owing to war conditions, shipping of British nationality which, prior to the outbreak of war in 1939, comprised the greater part of all shipping visiting Australia, declined progressively from 1939-40 onward, the percentage,

which in 1938-39 was 72.82, dropping to 43.40 in 1943-44. On the other hand shipping of United States of America nationality visiting Australia during the war years increased progressively, the percentage which in 1938-39 was only 2.61, advancing to 33.07 in 1943-44.

Particulars of the nationality of oversea shipping for the five years ended 30th June, 1944, are given in the following table :—

OVERSEA SHIPPING : NATIONALITY OF VESSELS ENTERED, AUSTRALIA.

Nationality.	Net Tonnage.				
	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.
BRITISH—					
Australian	332,742	229,486	188,163	191,107	278,416
United Kingdom	3,402,206	2,459,319	2,279,029	1,281,280	1,337,759
Canadian .. ..	..	1,456	6,894	17,000	80,237
New Zealand	427,632	292,898	158,119	146,446	144,969
Other British	216,449	187,828	144,935	174,228	104,266
Cargo	3,827,302	2,509,325	2,453,888	1,650,432	1,499,679
Ballast	551,727	661,662	323,252	159,629	445,968
Total British	4,379,029	3,170,987	2,777,140	1,810,061	1,945,647
Per cent. on total	67.73	58.95	53.67	47.33	43.40
FOREIGN—					
Danish	60,950	..	..	..	..
Dutch	402,353	467,930	577,733	246,754	271,349
French	88,588	82,357	75,957	7,335	9,305
German	25,348	..	..	..	..
Italian	67,093	..	..	..	..
Japanese	329,068	270,112	14,455	..	..
Norwegian	633,721	728,870	765,065	599,993	469,681
Swedish	89,243	46,152	92,319	113,611	80,018
United State of America	261,444	401,215	755,763	943,068	1,482,678
Other Foreign	128,828	211,298	115,686	103,667	224,850
Cargo	1,782,180	1,773,297	2,187,199	1,896,652	2,104,049
Ballast	304,456	434,637	209,779	117,776	433,832
Total Foreign	2,086,636	2,207,934	2,396,978	2,014,428	2,537,881
Per cent. on total	32.27	41.05	46.33	52.67	56.60
Cargo	5,609,482	4,282,622	4,641,087	3,547,084	3,603,728
Per cent. on total	86.76	79.62	89.70	92.75	80.38
Ballast	856,183	1,096,299	533,031	277,405	879,800
Per cent. on total	13.24	20.38	10.30	7.25	19.62
Grand Total	6,465,665	5,378,921	5,174,118	3,824,489	4,483,528

The Australian tonnage which entered Australia from overseas during the year 1943-44 represented 6.21 per cent. of the total tonnage entered and was mainly confined to the New Zealand and Pacific Island trade.

§ 3. Shipping of Ports.

1. **Total Shipping, Australia.**—The following table which has been compiled from information supplied by the State authorities controlling ports and harbours shows the total volume of shipping—oversea, interstate and coastwise—which entered the principal ports of Australia during the years 1941-42 to 1943-44 irrespective of whether these vessels were transporting civilian goods or troops and war equipment. Warships are excluded from the table.

Comparable figures for each of the years 1938-39 to 1940-41 appear in *Transport and Communication Bulletin* No. 35.

TOTAL SHIPPING OF PORTS : AUSTRALIA.

Port of Entry.	1941-42.		1942-43.		1943-44.	
	Vessels.	Net Tons.	Vessels.	Net Tons.	Vessels.	Net Tons.
<i>New South Wales—</i>						
Sydney ..	5,074	6,966,789	3,773	5,544,357	3,695	5,953,187
Clarence River ..	138	52,412	88	38,993	67	27,219
Coffs Harbour ..	157	70,859	109	51,279	92	42,528
Eden ..	56	20,879	53	22,745	46	16,678
Kembla ..	616	922,149	476	777,991	468	847,287
Newcastle ..	3,382	4,105,857	2,675	3,156,200	2,584	3,311,503
Port Stephens ..	119	11,678	79	45,900	52	33,644
<i>Victoria—</i>						
Melbourne ..	2,393	4,500,000	1,846	3,400,000	1,649	3,279,105
Geelong ..	239	330,000	233	443,230	144	287,056
Portland ..	6	32,923	6	33,376	8	51,457
Warrnambool ..	10	5,674	..	..	..	..
<i>Queensland—</i>						
Brisbane ..	940	2,934,310	1,134	2,689,122	1,495	3,936,306
Bowen ..	156	240,777	265	351,769	245	328,408
Bundaberg ..	95	36,749	19	6,803	38	13,326
Cairns ..	872	411,862	1,135	937,543	1,022	1,248,136
Gladstone ..	93	124,218	128	212,864	228	436,128
Mackay ..	79	118,092	54	117,636	46	105,201
Maryborough ..	142	59,314	66	27,027	48	28,818
Rockhampton ..	102	100,496	57	39,377	58	60,246
Thursday Island ..	(a) 53	(a) 104,070	(b)	(b)	(b)	(b)
Townsville ..	465	715,192	820	1,814,726	1,040	2,440,163
<i>South Australia—</i>						
Adelaide ..	2,303	2,347,345	2,211	1,539,606	2,475	1,634,543
Augusta ..	81	126,870	82	136,406	75	122,436
Edithburgh ..	129	36,236	99	35,500	162	48,471
Lincoln ..	366	386,518	314	389,112	307	431,227
Pirie ..	567	669,226	685	651,758	397	538,333
Thevenard ..	54	27,896	28	15,798	15	15,587
Victoria ..	61	9,784	50	8,663	37	9,210
Walleroo ..	166	117,697	113	101,412	201	101,359
Whyalla ..	669	994,883	772	1,000,275	625	986,724
<i>Western Australia—</i>						
Fremantle ..	627	3,093,409	603	2,623,566	762	3,153,332
Albany ..	36	90,206	27	69,119	26	89,587
Broome ..	(a) 36	(a) 84,652	(b)	(b)	(b)	(b)
Bunbury ..	72	154,078	51	114,734	58	129,946
Busselton ..	25	18,989	18	15,372	28	22,220
Carnarvon ..	90	123,061	60	92,921	42	71,876
Cossack ..	44	79,933	27	53,477	32	62,191
Derby ..	51	63,019	6	5,275	25	16,710
Esperance ..	4	21,565	3	13,683	4	16,754
Geraldton ..	66	171,858	31	97,640	53	141,324
Onslow ..	48	97,818	26	49,727	39	84,959
Port Hedland ..	47	76,370	26	52,553	34	53,871
Wyndham ..	(a) 20	(a) 50,804	..	..	..	..

(a) Portion of year only.

(b) Port closed.

TOTAL SHIPPING OF PORTS : AUSTRALIA—*continued*.

Port of Entry.	1941-42.		1942-43.		1943-44.	
	Vessels.	Net Tons.	Vessels.	Net Tons.	Vessels.	Net Tons.
<i>Tasmania</i> —						
Hobart	380	420,000	374	370,000	454	1,121,384
Burnie	445	400,000	339	293,677	292	276,305
Currie	78	14,900	68	13,203	81	15,917
Devonport ..	351	346,000	296	280,447	267	265,758
Launceston ..	368	250,000	287	149,370	220	142,702
Smithton ..	62	6,091	49	4,146	44	3,776
Stanley	140	63,167	130	54,840	126	51,321
Strahan	62	33,535	63	31,452	58	28,682
Ulverstone ..	49	10,965	48	7,688	27	5,514
<i>Northern Territory</i> —						
Darwin	(a) 81	(a) 207,970	(b)	(b)	(b)	(b)

(a) Portion of year only.

(b) Port closed.

2. Australia, New Zealand and United Kingdom.—The total shipping tonnage which entered the principal ports of Australia, New Zealand and the United Kingdom during 1938, will be found in the following table:—

SHIPPING OF PORTS : AUSTRALIA, NEW ZEALAND AND THE UNITED KINGDOM.

Port.	Net Tonnage Entered.	Port.	Net Tonnage Entered.
<i>AUSTRALIA</i> —		<i>ENGLAND AND WALES</i> —	
Sydney (N.S.W.) ..	11,650,317	London	30,776,918
Melbourne (Vic.) ..	8,646,893	Liverpool (including Birkenhead) ..	17,627,805
Adelaide (S.A.) ..	5,524,403	Southampton ..	13,468,875
Newcastle (N.S.W.) ..	5,099,481	Tyne Ports	9,130,122
Brisbane (Qld.) ..	4,916,463	Cowes (including coast of Isle of Wight) ..	7,812,746
Fremantle (W.A.) ..	4,012,219	Cardiff	7,319,932
Townsville (Qld.) ..	1,473,008	Hull	6,279,805
Kembla (N.S.W.) ..	1,225,258	Plymouth	6,018,318
Hobart (Tas.)	1,153,143	Dover	3,983,753
Whyalla (S.A.)	1,036,798	Bristol	3,931,515
Geelong (Vic.)	837,878	Manchester (including Runcorn)	3,857,452
Pirie (S.A.)	814,862	Swansea	3,377,269
Cairns (Qld.)	789,636	Sunderland	3,038,837
Burnie (Tas.)	784,873	Middlebrough ..	2,984,012
Rockhampton (Qld.) ..	596,226	Harwich	2,790,985
Mackay (Qld.)	545,650	Blyth	2,665,141
Gladstone (Qld.) ..	526,492	Portsmouth	2,610,865
Albany (W.A.)	510,807	Newport	2,330,773
Launceston (Tas.) ..	507,531	<i>SCOTLAND</i> —	
Lincoln (S.A.)	492,868	Glasgow	6,573,762
Devonport (Tas.) ..	476,071	Greenock (including Port Glasgow)	3,435,708
Bowen (Qld.)	336,175	Leith	2,217,628
Thursday Island (Qld.) ..	303,369	<i>NORTHERN IRELAND</i> —	
<i>NEW ZEALAND</i> —		Belfast	7,561,260
Wellington	3,961,790		
Auckland	3,212,383		
Lyttleton	2,181,290		
Dunedin	1,189,924		

Figures relating to ports of the United Kingdom have been obtained from the British Board of Trade's *Annual Statement of the Navigation and Shipping of the United Kingdom*, 1938, and those relating to New Zealand from the *New Zealand Official Year Book*, 1940. Figures for years subsequent to 1938 are not available for the ports of the United Kingdom.

§ 4. Vessels Built and Registered.

1. **Vessels Built.**—The following table shows the number and tonnage of vessels built in Australia during each of the calendar years 1939 to 1944, so far as such information can be ascertained from the Shipping Registers of the various States. The Merchant Shipping Act, under which vessels are registered in Australia, does not, however, make it compulsory to register vessels under 15 tons burden if engaged in river or coastal trade. Larger vessels are also exempt from registration if not engaged in trade. Yachts and small trading vessels may be, and frequently are, registered at the request of the owners.

VESSELS BUILT IN AUSTRALIA.

Year.	Steam.		Motor.(a)				Sailing.				Total.			
	Tonnage.		Tonnage.				Tonnage.				Tonnage.			
	No.		No.				No.				No.			
		Gross.	Net.		Gross.	Net.		Gross.	Net.			Gross.	Net.	
1939 ..	2	353	46	14	442	307	1	34	20	17		829	373	
1940 ..	..	..	..	8	297	185	3	388	290	11		685	475	
1941 ..	..	..	..	14	564	418	..	..	..	14		564	418	
1942 ..	1	603	312	3	99	70	..	..	..	4		702	382	
1943 ..	4	19,850	10,869	1	68	46	..	..	..	5		19,918	10,915	
1944 ..	6	20,216	10,880	..	..	..	..	..	..	6		20,216	10,880	

(a) Including vessels with auxiliary motors.

2. **Vessels Registered.**—The following table shows the number and net tonnage of steam, sailing and other vessels on the register of each State on the 31st December, 1943 and on the registers of all States combined at the 31st December, 1939 to 1942 :—

VESSELS ON THE STATE REGISTERS, 31st DECEMBER, 1939 TO 1943.

State or Territory.	Steam and Motor.		Sailing.				Barges, Hulks, Dredges, &c., not self-propelled.		Total.	
			Propelled by Sail Only.		Fitted with Auxiliary Power.					
	No.	Net Tons.	No.	Net Tons.	No.	Net Tons.	No.	Net Tons.	No.	Net Tons.
New South Wales	306	55,802	180	6,271	298	18,775	45	11,176	829	92,024
Victoria ..	162	166,407	47	652	59	1,309	52	21,871	320	190,239
Queensland ..	55	10,054	63	908	44	520	24	3,712	186	15,194
South Australia ..	70	10,326	15	307	41	2,011	39	6,258	165	18,902
Western Australia	34	5,271	254	3,626	40	847	14	1,309	342	11,053
Tasmania ..	39	3,901	61	2,241	67	1,743	1	382	168	8,267
Northern Territory	..	..	..	..	..	..	..	..	..	..
(a)										
Total, 1943	666	251,761	620	14,005	549	25,205	175	44,708	2,010	335,670
Total 1942 ..	691	249,691	677	14,933	619	30,220	184	48,776	2,171	343,620
.. 1941 ..	699	254,573	679	14,959	625	30,429	185	49,159	2,188	349,120
.. 1940 ..	718	260,060	685	15,045	603	29,735	185	49,159	2,191	353,990
.. 1939 ..	703	258,962	685	14,865	608	25,560	186	49,022	2,182	348,400

(a) Port of Darwin closed.

3. **World's Shipping Tonnage.**—The table hereunder shows the number and gross tonnage of steam and motor, and of sailing vessels owned by the most important maritime countries prior to the outbreak of war, together with the proportion of the grand total owned by each country:—

WORLD'S SHIPPING TONNAGE, 1st JULY, 1939.

Country Where Owned.	Steamers and Motorships.		Sailing Vessels and Barges.		Total.		Percentage on Total.	
	No.	Gross Tonnage.	No.	Gross Tonnage.	No.	Gross Tonnage.	No.	Gross Tonnage.
		'000.		'000.		'000.		
United Kingdom ..	6,722	17,891	287	93	7,009	17,984	22.5	25.9
Australia and New Zealand ..	524	670	10	4	534	674	1.7	1.0
Canada (a) ..	792	1,224	79	81	871	1,305	2.8	1.9
Other British ..	939	1,217	135	35	1,074	1,252	3.4	1.8
Total, British Empire ..	8,977	21,002	511	213	9,488	21,215	30.4	30.6
Belgium ..	200	408	..	..	200	408	0.7	0.6
Denmark ..	705	1,175	4	1	709	1,176	2.3	1.7
France ..	1,231	2,934	51	19	1,282	2,953	4.1	4.2
Germany ..	2,459	4,483	7	10	2,466	4,493	7.9	6.5
Greece ..	607	1,781	..	..	607	1,781	1.9	2.5
Holland ..	1,523	2,970	9	3	1,532	2,973	4.9	4.3
Italy ..	1,227	3,425	108	24	1,335	3,449	4.3	4.9
Japan ..	2,337	5,630	..	..	2,337	5,630	7.5	8.1
Norway ..	1,987	4,834	3	1	1,990	4,835	6.4	7.0
Russia ..	699	1,306	17	10	716	1,316	2.3	1.9
Spain ..	777	902	47	12	824	914	2.6	1.3
Sweden ..	1,231	1,577	7	5	1,238	1,582	4.0	2.3
United States of America (b) ..	2,958	11,490	417	513	3,375	12,003	10.8	17.3
Other Foreign Countries ..	2,845	4,592	242	119	3,087	4,711	9.9	6.8
Total, Foreign Countries ..	20,786	47,507	912	717	21,698	48,224	69.6	69.4
Grand Total ..	29,763	68,509	1,423	930	31,186	69,439	100.0	100.0

(a) Including Great Lakes shipping.

(b) Including Philippine Islands and Great Lakes shipping.

The foregoing figures have been compiled from *Lloyd's Register of Shipping*, and only vessels of 100 tons or upwards have been included. Similar particulars are not available for later years.

§ 5. Interstate Shipping.

1. **System of Record.**—*Interstate Shipping* comprises two elements: (a) Vessels engaged solely in interstate trade: and (b) Vessels trading between Australia and oversea countries and in the course of their voyage proceeding from one State to another. (It should be mentioned that these vessels, except under special circumstances, do not now engage in interstate carrying.) No complexity enters into the record of those in category (a), but with regard to the method of recording the movements of the oversea vessels (b) some explanation is necessary. Each State desires that its shipping statistics (which are prepared in this Bureau) should show in full its shipping communication with oversea countries, but at the same time it is necessary to avoid any duplication in the statistics for Australia as a whole. In order to meet these dual requirements, a vessel arriving in any State from an oversea country—say United Kingdom—*via* another State, is recorded in the second State as from United Kingdom *via* States, thus distinguishing the movement from a *direct* oversea entry. Continuing the voyage, the vessel is again recorded for the statistics of the third State as from United Kingdom *via* other States. On an inward voyage the *clearance* from the first State to the second State is a *clearance* interstate, and is included with interstate tonnage in conformity with the pre-federation practice of the States, and to preserve the continuity of State statistics. Thus, movements of ships which are, from the standpoint of Australia as a whole, purely coastal movement, must for the individual States be recorded as “Oversea *via* other States” or “Interstate” according to the direction of the movement. The significance of the record of these movements will be more clearly seen from the following tabular presentation of the inward and outward voyages to and from Australia of a mail steamer which, it is presumed, reaches Fremantle (Western Australia) and then proceeds to the terminal port of the voyage—Sydney (New South Wales)—*via* South Australia and Victoria. From the terminal port the vessel will commence the outward voyage, and retrace its inward track.

ITINERARY OF AN OVERSEA VESSEL ON AUSTRALIAN COAST.

Particulars.	Recorded as—	
	For the State and for Australia.	For the States.
Inward Voyage—		
Enters Fremantle from United Kingdom	Oversea direct	
Clears Fremantle for Adelaide	Interstate direct
Enters Adelaide from United Kingdom <i>via</i> Fremantle Oversea <i>via</i> States
Clears Adelaide for Melbourne	Interstate direct
Enters Melbourne from United Kingdom <i>via</i> Adelaide Oversea <i>via</i> States
Clears Melbourne for Sydney	Interstate direct
Enters Sydney from United Kingdom <i>via</i> Melbourne Oversea <i>via</i> States
Outward Voyage—		
Clears Sydney for United Kingdom <i>via</i> Melbourne Oversea <i>via</i> States
Enters Melbourne from Sydney	Interstate direct
Clears Melbourne for United Kingdom <i>via</i> Adelaide Oversea <i>via</i> States
Enters Adelaide from Melbourne	Interstate direct
Clears Adelaide for United Kingdom <i>via</i> Fremantle Oversea <i>via</i> States
Enters Fremantle from Adelaide	Interstate direct
Clears Fremantle for United Kingdom ..	Oversea direct	

From the method outlined above, the requirements for Australia and for the individual States are ascertained as follows. (a) The aggregate of all ships recorded for each State as “Oversea *direct*” gives the oversea shipping for Australia as a whole; (b) the aggregate

for all ships recorded in any State as "Oversea direct" plus those recorded as "Oversea via States" gives the total *oversea shipping* for that State; and (c) the aggregate for all ships recorded as "Oversea via States" may also be used, together with those recorded as "Interstate direct," to furnish figures showing the total interstate *movement* of shipping.

It should be remembered, however, that all overseas vessels do not follow the same itinerary as the vessel in the table above.

2. **Vessels and Tonnage Entered.**—(*Interstate direct.*) The following table gives the number and tonnage of vessels recorded as having entered each State from any other State during each of the years 1939-40 to 1943-44. The shipping of the Murray River, between the States of New South Wales, Victoria and South Australia, is excluded :—

INTERSTATE SHIPPING : NUMBER AND TONNAGE OF VESSELS ENTERED.

State or Territory.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.
NUMBER.					
New South Wales ..	1,910	1,886	1,668	1,310	1,282
Victoria	2,052	1,995	1,751	1,356	1,210
Queensland	574	514	480	388	389
South Australia ..	947	697	638	527	562
Western Australia ..	322	257	224	159	209
Tasmania	1,158	1,091	1,003	845	773
Northern Territory ..	54	52	37	(a)	(a)
Total	7,017	6,492	5,801	4,585	4,425

NET TONNAGE.					
New South Wales ..	4,797,461	4,269,901	3,521,928	2,622,203	2,535,139
Victoria	3,958,429	3,374,817	2,703,066	1,887,981	1,749,900
Queensland	1,354,159	1,070,176	816,959	570,182	620,565
South Australia ..	2,635,480	1,753,093	1,469,967	1,237,473	1,414,568
Western Australia ..	1,599,339	1,395,899	1,061,655	622,087	745,361
Tasmania	1,120,167	973,392	910,959	624,868	603,959
Northern Territory ..	128,422	140,384	89,607	(a)	(a)
Total	15,593,457	12,977,662	10,574,141	7,564,794	7,660,492

(a) Port of Darwin closed.

The total net tonnage declined steadily from 19,900,793 in 1938-39 during the next four years and remained practically unchanged in 1943-44 when it represented only 38 per cent. of the total net tonnage for 1938-39.

3. **Oversea Vessels Moving Interstate.**—(*Oversea via States.*) To ascertain the aggregate movement of shipping between the States, including the total interstate movements of oversea vessels, the figures in the following table which give the number and tonnage of vessels entered from or cleared for oversea countries via other Australian States, must be added to those in the preceding table :—

SHIPPING ENTERED AND CLEARED FROM AND TO OVERSEA COUNTRIES VIA OTHER AUSTRALIAN STATES, 1939-40 TO 1943-44.

State or Territory.	Entered.		Cleared.		Total.	
	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.
New South Wales ..	131	566,337	159	617,072	290	1,183,409
Victoria ..	106	530,643	90	376,802	196	907,445
Queensland ..	72	404,772	19	88,407	91	493,179
South Australia ..	30	149,349	71	284,694	101	434,043
Western Australia ..	6	27,074	10	45,811	16	72,885
Tasmania ..	10	54,797	7	30,623	17	85,420
Northern Territory(a)	..	..	..	..	..	..
Total, 1943-44	355	1,732,972	356	1,443,409	711	3,176,381
Total 1942-43 ..	368	1,610,022	310	1,257,580	678	2,867,602
„ 1941-42 ..	695	3,231,249	580	2,496,430	1,275	5,727,679
„ 1940-41 ..	982	5,012,737	820	4,170,108	1,802	9,182,845
„ 1939-40 ..	1,441	7,833,479	1,321	7,127,829	2,762	14,961,308

(a) Port of Darwin closed.

Oversea vessels moving interstate are with few exceptions not engaged in the active interstate trade of Australia, but are merely proceeding to the several States in continuation of their oversea voyages.

4. **Total Interstate Movement of Shipping.**—(i) *Australia.* The appended table shows the total interstate movement of shipping including oversea vessels moving interstate for each of the years 1939-40 to 1943-44 :—

TOTAL INTERSTATE MOVEMENT OF SHIPPING : AUSTRALIA.

Year.	Entered.		Cleared.	
	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.
1939-40	8,458	23,426,936	8,522	23,417,013
1940-41	7,474	17,990,399	7,519	17,554,209
1941-42	6,496	13,805,390	6,494	13,492,821
1942-43	4,953	9,174,816	5,010	9,358,048
1943-44	4,780	9,393,464	4,848	9,470,530

(ii) *States.* The following table shows the number and tonnage of vessels which entered and cleared each State from and for other States during the years 1939-40 to 1943-44, including the interstate movements of oversea vessels :—

INTERSTATE SHIPPING OF EACH STATE, 1939-40 TO 1943-44.

State or Territory.		1939-40.	1940-41.	1941-42.	1942-43.	1943-44.
NUMBER AND NET TONNAGE OF VESSELS ENTERED.						
New South Wales	Vessels ..	2,326	2,212	1,954	1,486	1,413
	Net Tonnage	7,019,027	5,975,399	4,924,264	3,377,968	3,101,476
Victoria	Vessels ..	2,482	2,316	1,923	1,449	1,316
	Net Tonnage	6,362,104	5,067,357	3,455,820	2,301,349	2,271,543
Queensland	Vessels ..	783	611	570	431	461
	Net Tonnage	2,551,384	1,530,991	1,230,752	701,067	1,025,337
South Australia	Vessels ..	1,238	884	753	569	592
	Net Tonnage	4,229,147	2,652,899	2,009,247	1,395,180	1,563,917
Western Australia	Vessels ..	357	275	233	162	215
	Net Tonnage	1,729,029	1,463,838	1,093,951	635,611	772,435
Tasmania	Vessels ..	1,217	1,124	1,020	856	783
	Net Tonnage	1,406,623	1,159,531	982,363	673,641	658,756
Northern Territory	Vessels ..	55	52	43	(a)	(a)
	Net Tonnage	129,622	140,384	103,893		
Total	Vessels ..	8,458	7,474	6,496	4,953	4,780
	Net Tonnage	23,426,936	17,990,399	13,805,390	9,174,816	9,393,464

NUMBER AND NET TONNAGE OF VESSELS CLEARED.

New South Wales	Vessels ..	2,394	2,177	1,883	1,449	1,436
	Net Tonnage	7,127,829	5,486,814	4,297,539	3,251,536	3,325,452
Victoria	Vessels ..	2,486	2,308	1,932	1,514	1,340
	Net Tonnage	6,311,174	4,872,050	3,580,265	2,572,984	2,297,482
Queensland	Vessels ..	781	644	571	434	494
	Net Tonnage	2,507,150	1,658,549	1,243,798	775,722	967,066
South Australia	Vessels ..	1,235	911	795	578	604
	Net Tonnage	4,055,822	2,768,559	2,171,064	1,370,967	1,568,250
Western Australia	Vessels ..	341	256	253	167	165
	Net Tonnage	1,823,202	1,427,431	1,182,445	653,058	615,758
Tasmania	Vessels ..	1,249	1,180	1,018	868	809
	Net Tonnage	1,499,194	1,215,695	919,654	733,181	695,622
Northern Territory	Vessels ..	36	43	42	(a)	(a)
	Net Tonnage	92,642	125,111	98,056		
Total	Vessels ..	8,522	7,519	6,494	5,010	4,848
	Net Tonnage	23,417,013	17,554,200	13,492,821	9,358,048	9,470,530

(a) Port of Darwin closed.

5. *Vessels engaged Solely in Interstate Trade.*—The following table gives the number and net tonnage of vessels engaged solely in interstate trade which entered the ports of each State direct from other States during the years 1939-40 to 1943-44.

VESSELS ENGAGED SOLELY IN INTERSTATE TRADE : NUMBER AND TONNAGE OF VESSELS ENTERED, 1939-40 TO 1943-44.

State or Territory.		1939-40.	1940-41.	1941-42.	1942-43.	1943-44.
NUMBER OF VESSELS ENTERED.						
New South Wales	..	1,586	1,584	1,371	967	1,097
Victoria ..	..	1,786	1,810	1,535	1,157	1,081
Queensland ..	..	418	388	387	294	297
South Australia ..	..	807	591	497	332	422
Western Australia ..	..	120	118	84	51	89
Tasmania ..	..	1,124	1,068	963	795	745
Northern Territory	..	20	30	23	(a)	(a)
Total ..	..	5,861	5,589	4,860	3,596	3,731

(a) Port of Darwin closed.

VESSELS ENGAGED SOLELY IN INTERSTATE TRADE: NUMBER AND TONNAGE OF VESSELS ENTERED, 1939-40 to 1943-44—continued.

State or Territory.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.
NET TONNAGE OF VESSELS ENTERED.					
New South Wales ..	3,125,254	2,740,598	2,187,898	1,604,436	1,854,848
Victoria ..	2,478,332	2,404,123	1,852,791	1,285,015	1,264,542
Queensland ..	748,480	635,277	530,873	437,975	365,917
South Australia ..	1,816,746	1,317,284	1,016,860	646,526	944,077
Western Australia ..	397,502	374,605	238,040	113,765	226,586
Tasmania ..	981,807	889,773	723,115	526,001	518,125
Northern Territory ..	37,296	75,704	43,201	(a)	(a)
Total ..	9,585,417	8,497,364	6,598,778	4,613,718	5,174,095

(a) Port of Darwin closed.

The figures in the table above have been compiled direct from the shipping returns, and are comparable with those published since 1936-37. Previous to that year, however, the figures were derived from calculations based on an assumption which did not hold in all cases.

6. Interstate and Coastal Services.—The subjoined table gives particulars, so far as they are available, of all steamships engaged in regular interstate or coastal services at the end of each of the years 1939 to 1944 :—

INTERSTATE AND COASTAL STEAMSHIP SERVICES IN AUSTRALIA.

Particulars.	1939.	1940.	1941.	1942.	1943.	1944.
Number of companies operating ..	28	28	27	25	25	26
Number of steamships ..	154	150	137	114	117	117
Tonnage { Gross ..	344,967	334,105	316,499	271,385	286,884	283,233
Net ..	190,634	184,656	175,148	153,656	159,658	157,824
Horse-power (Nominal) ..	37,580	33,404	31,985	26,706	27,597	27,414
Number of passengers for which licensed (a) { 1st class ..	3,385	3,147	2,889	2,462	2,107	2,088
2nd class and steerage ..	1,332	1,360	1,256	949	961	961
Master and officers ..	537	528	497	413	435	431
Engineers ..	563	541	511	422	444	443
Crew ..	4,215	4,041	3,837	3,207	3,331	3,320

(a) Excluding purely day passenger accommodation.

§ 6. Tonnage of Cargo.

1. Oversea and Interstate Cargo.—(i) *Australia*. The table hereunder shows the aggregate tonnage of oversea cargo discharged and shipped and the tonnage of interstate cargo shipped in all ports for the years 1939-40 to 1943-44. Cargo which was stated in cubic feet has been converted to tons measurement on the basis of 40 cubic feet to the ton.

CARGO MOVEMENT.

Year.	Oversea Cargo.				Interstate Cargo.	
	Discharged.		Shipped.		Shipped.	
	Tons Weight	Tons Meas.	Tons Weight.	Tons Meas.	Tons Weight.	Tons Meas.
1939-40 ..	3,720,857	2,494,652	4,780,593	963,584	7,140,480	2,078,319
1940-41 ..	2,957,811	1,772,465	4,036,613	1,250,862	7,999,110	1,965,553
1941-42 ..	3,750,070	1,757,283	2,857,812	1,300,433	8,099,518	1,903,903
1942-43 ..	3,654,310	1,423,953	2,380,415	1,256,595	7,603,709	1,807,540
1943-44 ..	4,138,018	1,781,142	3,354,581	1,701,591	7,517,152	1,722,429

(ii) *Principal Ports.* The following table shows the tonnage of oversea and interstate cargo discharged and shipped at principal ports during 1943-44. Comparable figures for each of the years 1939-40 to 1942-43 appear in *Transport and Communication Bulletin* Nos. 34 and 35.

**TONNAGE(a) OF CARGO DISCHARGED AND SHIPPED AT PRINCIPAL PORTS,
1943-44.**

Port.	Discharged.			Shipped.		
	Oversea.	Interstate.	Total.	Oversea.	Interstate.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Sydney	2,118,743	1,171,925	3,290,668	1,709,012	675,212	2,384,224
Kembla	65,624	977,787	1,043,411	184,673	300,870	485,543
Newcastle	130,984	1,265,040	1,396,024	151,318	2,856,244	3,007,562
Other .. ..	..	..	..	12,830	3,015	15,845
Total, New South Wales	2,315,351	3,414,752	5,730,103	2,057,833	3,835,341	5,893,174
Melbourne	1,418,983	2,160,962	3,579,945	715,137	994,102	1,709,239
Geelong	69,880	176,063	245,943	100,107	37,238	137,345
Other	20,522	..	20,522	6,114	..	6,114
Total, Victoria	1,509,385	2,337,025	3,846,410	821,358	1,031,340	1,852,698
Brisbane	704,500	485,957	1,190,457	299,681	186,345	486,026
Cairns	84,970	107,852	192,822	25,850	153,623	179,473
Townsville	474,855	119,433	594,288	374,149	157,040	531,189
Other	26,565	52,691	79,256	61,918	141,381	203,299
Total, Queensland	1,200,890	705,933	2,050,823	701,598	638,389	1,399,987
Adelaide	186,758	1,055,448	1,242,206	501,756	388,576	890,332
Pirie	63,020	183,130	246,150	137,036	171,057	308,093
Walleroo	7,487	..	7,487	100,839	18,284	119,123
Whyalla	7,500	292,663	300,163	..	2,060,543	2,060,543
Other	13,488	64,393	77,881	105,701	13,869	119,570
Total, South Australia	278,253	1,595,034	1,873,887	845,332	2,652,329	3,497,661
Fremantle	432,880	452,771	885,651	386,036	107,441	493,477
Bunbury	15,532	..	15,532	37,630	60,144	97,774
Geraldton	14,416	..	14,416	110,708	..	110,708
Other	24,956	6,188	31,144	6,055	25,061	31,116
Total, Western Australia	487,784	458,959	946,743	540,429	192,646	733,075
Hobart	29,466	369,394	398,860	20,990	299,173	320,163
Devonport	8,031	26,741	34,772	..	230,419	230,419
Launceston .. ..	..	121,836	121,836	..	128,086	128,086
Other .. ..	..	90,428	90,428	8,632	231,858	240,490
Total, Tasmania	37,497	608,399	645,896	29,622	889,536	919,158
Darwin (Northern Territory) (b) .. ..	..	..	..	..	..	..
Total, AUSTRALIA	5,619,160	6,186,702	15,000,862	5,050,172	6,230,581	14,285,753

(a) Tons weight and tons measurement combined.

(b) Port closed.

2. **Nationality.**—The following table shows the total oversea cargo discharged and shipped according to the nationality of the vessels carrying during the years 1939-40 to 1943-44 :—

TONNAGE(a) OF OVERSEA CARGO DISCHARGED AND SHIPPED.

Vessels Registered at Ports in—	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.
British—					
Australia	472,670	400,186	398,063	276,236	323,290
United Kingdom	6,385,283	4,001,339	3,193,218	2,641,244	3,358,220
Canada .. ..	..	2,273	6,671	74,940	242,298
New Zealand	352,179	482,685	437,901	434,791	375,217
Other British	378,899	371,230	318,467	343,777	241,388
Total British	7,589,031	5,257,713	4,354,320	3,770,988	4,540,413
Per cent. on Total	63.46	52.48	45.05	43.27	41.37
Foreign—					
Denmark	175,548	13,952	..	..	..
France	161,405	158,304	142,087	24,520	17,933
Germany	67,165	..	..	..	..
Italy	72,170	2,557	..	..	..
Japan	511,576	447,193	29,977	..	..
Netherlands(b)	899,941	684,728	1,043,829	370,140	195,660
Norway	1,467,763	1,927,404	2,066,717	1,639,911	1,386,942
Sweden	317,704	223,533	426,931	472,534	415,279
United States of America	359,764	690,415	1,286,999	2,140,310	3,870,327
Other Foreign	337,619	611,952	314,738	296,870	548,778
Total Foreign	4,370,655	4,760,038	5,311,278	4,944,285	6,434,919
Per cent. on Total	36.54	47.52	54.95	56.73	58.63
Grand Total	11,959,686	10,017,751	9,665,598	8,715,273	10,975,332

(a) Tons weight and tons measurement combined.

(b) Includes Netherlands East Indies.

Owing to war conditions the percentage of cargo carried in British vessels decreased from 72.43 in 1938-39 to 41.37 in 1943-44 while the percentage carried in ships of the United States of America increased from only 1.26 in 1938-39 to 35.26 in 1943-44.

§ 7. War-time Control of Shipping.

1. **General.**—The first steps by the Commonwealth Government to regulate Australian shipping were taken shortly after the outbreak of war when the Government, in view of the effect upon price levels, vetoed the surcharge on all freight rates proposed by the major Australian shipping companies to meet increased costs and, after referring the matter to the Prices Commission, agreed to a surcharge appreciably less than that originally proposed.

In January, 1940, proposals were drawn up for the formation of a controlling authority, but it was not found necessary to implement them until June, 1940, when, following the grave turn of events in Europe, culminating in the fall of France, national control of Australian shipping was established through the Shipping Control Board and the Commonwealth Government Ships' Chartering Committee whose history is separately dealt with hereinafter.

By December, 1941, when Japan attacked the United States of America and Britain, practically all Australian registered tonnage operating in interstate services had been requisitioned by the Shipping Control Board. The first result of the direct threat to Australia was the taking over for war needs by the Royal Australian Navy and Australian Army of a large number of vessels of all types, which greatly depleted the tonnage available for Australian coastwise transport of essential commodities, and for the vastly increased volume of Service cargoes around the coast.

When the United States of America Forces came to Australia the shipping problem was greatly intensified. An influx of refugee shipping from Eastern ports seized by the Japanese had already congested port facilities, and a special organization, the Central Cargo Control Committee, had to be created to deal with the problem of clearance of cargo from wharfs. Now additional provision had to be made to handle large numbers of United States of America vessels bringing armament and personnel to Australia. In order to ensure the co-operation of the trade unions concerned in the shipping industry, the Maritime Industry Commission and the Stevedoring Industry Commission were set up under National Security Regulations to control respectively crews of ships and waterside workers handling cargo. The Commonwealth Salvage Board was also established to handle the salvaging of vessels sunk or damaged by enemy action against shipping around the Australian coast.

Prior to October, 1942, these various authorities referred to functioned under several different Departments, viz. :—Commonwealth Government Ships' Chartering Committee, Shipping Control Board, Commonwealth Salvage Board, and the Maritime Industry Commission under the Department of Commerce and Agriculture; Central Cargo Control Committee under the Department of Trade and Customs; and the Stevedoring Industry Commission under the Department of Labour and National Service. To ensure the full co-ordination of all shipping authorities necessary to meet the strain upon the Australian transport systems—both sea and land—and the increased needs of the Commander-in-Chief the Commonwealth Government in October, 1942, concentrated all such organizations under one Ministry, and as questions of supply were closely bound up with shipping, created a new Ministry of Supply and Shipping with a Directorate of Shipping. Sir Thomas Gordon who was Representative in Australia of the British Ministry of War Transport and Chairman of the Allied Consultative Shipping Council was appointed Director of Shipping, and became responsible to the Minister for the administration of all the authorities mentioned above with the exception of the Maritime Industry Commission, which, in view of its quasi-judicial character, remained directly responsible to the Minister. At the same time the Marine Branch previously attached to the Department of Commerce and Agriculture was also transferred to the Department of Supply and Shipping.

The Government at this stage was faced with a number of grave problems. The Commander-in-Chief required immediately as many small ships as possible for operation against the Japanese in the South-West Pacific Area. Port facilities, particularly in Western Australia and North Queensland, needed organizing and expanding in order to meet Service requirements. All ports were experiencing increasing difficulties through shortage of waterside labour. A huge volume of ship repair work had been thrown upon Australian resources. At the same time, the Commonwealth's own transport requirements, both for war cargoes and for essential civilian needs, had to be met. With the enemy active along our shores, stocks of raw materials—coal, ironstone and metals—had to be accumulated against the risk of disruption of sea communications. Priorities were therefore laid down to ensure that whatever shipping was needed would be available for (a) Defence needs; (b) Coal; (c) Ironstone, calcines and concentrates; and (d) Steel products. Apart from these major priorities, no detailed classification of general cargoes was attempted but drastic steps were taken in conjunction with the Department of War Organization of Industry to curtail the carriage of non-essential goods by sea, and in co-operation with the Department of Transport a proportion of goods previously carried by sea in certain areas was transferred to rail, while in other areas, e.g., Queensland, additional vessels were provided to ease the burden on the

railways. In order to co-ordinate sea and rail carriage a Transport Co-ordination Sub-Committee was set up in Sydney, comprising representatives of the Commonwealth Department of Transport, the N.S.W. Railways Department and the Directorate of Shipping, and in Melbourne the Commonwealth Department of Transport maintained a close liaison with the Tonnage Committee of the Shipping Control Board. In order also to ensure that within other categories of goods preference of shipment was given to the most urgent needs, liaison was maintained with the Government Departments associated with the various commodities, e.g. Department of Commerce and Agriculture (Food Control), Department of War Organization of Industry, and Ministry of Munitions.

The Allied Consultative Shipping Council, to which reference is made above, was formed in 1942 to co-ordinate the use of shipping—Australian, Allied and Foreign—in the South-West Pacific Area and to obtain for the Commonwealth all assistance possible from overseas vessels available between Australian ports. Under the auspices of the Council, Priority Committees were formed at all ports to regulate the order of priority in which vessels should be worked according to the waterside labour available.

A British-American-Australian Shipping Sub-Committee was also set up at Sydney through which overflow cargo requirements that could not be met by Australian shipping were channelled and the maximum assistance obtained from the British Ministry of War Transport or the United States of America War Shipping Administration vessels in Australian waters. As a result, help of the greatest value was obtained from British, American, Dutch, Greek, Yugo-Slav, Norwegian, Danish and Swedish tonnage, either by the allocation of vessels under these flags to the Commonwealth or by the use of vacant space in them between Australian ports.

In regard to port facilities, the Port Equipment and Development Committee, comprising members of Australian Harbour Authorities was formed to advise the Director of Shipping upon all aspects of port equipment and organization.

Ship repairs came under the administrative control of the Ministry of Munitions, and the Director of Shipping, through the Executive Ships Repair Committee, maintained close contact with the position so that operational and maintenance necessities could be handled with the facilities available. He likewise kept in close touch with the Australian Shipbuilding Board, also under the control of the Ministry of Munitions for the co-ordination of the ship construction programme with urgent operational requirements.

The objective of the Department of Supply and Shipping, as will be seen from the foregoing, was to establish the closest possible liaison not only amongst the various authorities under its control, but also with all other relevant authorities so that policy would operate along parallel lines.

Although the tide of war receded from Australia's shores, there was no corresponding relief in the shipping situation, rather the points of pressure altered. In June, 1945, the drought conditions in the South-Eastern portion of the continent had created unprecedented demands for the carriage of wheat and fodder from other States and also from overseas to Victoria, New South Wales and Queensland, whilst operational requirements had to be maintained. As the attack moved nearer to Japan the lengthened lines of communication necessitated the employment of a greater number of vessels on operational service and a corresponding reduction in those available for local Australian trade.

The establishment of the Royal Navy base at Sydney created further special problems of wharfrage accommodation and labour, to deal with which a Port of Sydney Advisory Panel with the Director of Shipping as Chairman was constituted, and a Berthing Sub-Panel was formed to ensure that vessels—Service and Commercial—were provided with berths in order of urgency. The Berthing Sub-Panel was, in turn, linked up with the Sydney Priority Committee, so that the problems of berthage and labour could be dealt with co-jointly.

The foregoing refers to the general war-time shipping organization. The facilities and activities of the various shipping authorities under the control of the Minister for Supply and Shipping are dealt with below.

2. **Commonwealth Shipping Control Board.**—This Board established under National Security (Shipping Control) Regulations on the 30th January, 1941, was the instrument by which the Commonwealth Government exercised control of Australian coastal merchant shipping with a view to its more effectual use in connexion with the war. National Security (Shipping Control) Regulations were subsequently embodied in National Security (Shipping Co-ordination) Regulations.

In view of the pressure imposed by the war on the Australian merchant marine it was necessary as the war developed to organize shipping so that tonnage could be used to most effective advantage in lifting essential cargoes and in catering for urgent and fluctuating demands for shipping to carry personnel and stores for the services. Arrangements were made accordingly to take over the vessels under requisition from owners and operate them under charter to the Australian Government. The majority of vessels were requisitioned in July, 1941, and those remaining were taken over later as found necessary.

The Shipping Control Board Regulations gave authority to the Minister for Supply and Shipping to requisition on the recommendation of the Shipping Control Board any Australian vessel and the charter arrangements placed the vessel so requisitioned at the disposal of the Board. The Board was empowered to decide how and where the vessels were to be employed and could require the owner of any ship requisitioned to act as agent for that ship. In practice owners concerned acted as agents for the Board for their own vessels and were remunerated for their services. Cargoes were restricted and some goods considered to be non-essential were excluded entirely from the interstate trade. The Board co-operated fully with Land Transport Authorities, but it is interesting to note that under normal conditions from eighty to ninety per cent. of Australian interstate trade is carried by sea.

The Australian Merchant Fleet was supplemented by overseas vessels which were operating on the coast. These included vessels sub-chartered from the British Ministry of War Transport on time charter basis, British and American ships used for coastal traffic whilst temporarily in Australian waters and also vessels under the control of the Commonwealth Ships' Chartering Committee. Generally, the overseas vessels were used to carry bulk cargoes, chiefly coal, coke and ironstone.

The Board determined the appropriate use of ships for the carriage of coal and ironstone. The competing claims of cargo required constant attention which had to be determined upon main lines of policy, and many questions arising from the requisitioning and operation of vessels had to be referred to the Board for decision.

For the purpose of advising in the management of the Shipping Services, a Shipping Management Committee composed of representatives of principal shipping companies whose ships had been requisitioned met periodically, its decisions being subject to confirmation by the Shipping Control Board, the chairman of which was also chairman of this Committee. Another body through which the Board worked was the Central Traffic Committee consisting of Traffic Officers of the shipping companies who were engaged in the day to day task of working out the position of ships along various routes and estimating their availability for particular cargoes. A tonnage allotment committee consisting of the Traffic Officers of the Board considered tonnage fixtures and reported to the Central Traffic Committee. There were also Branch Traffic Committees at the main ports and small sub-committees at various State ports. These committees worked in close association with the Central Traffic Committee.

The Board operated under the direction of the Director of Shipping who, subject to the direction of the Minister for Supply and Shipping, formulated policy on all shipping problems. Through the Director of Shipping the Board was kept in touch with other bodies associated with shipping matters, and was also advised of assistance which could be made available by British and American tonnage for the carriage of cargo on the Australian coast.

Despite many Australian vessels being taken over by the Australian and Allied Services, losses by enemy action, and reduced efficiency due to the necessity of moving ships under war conditions, the cargo position in Australia remained reasonably satisfactory. All Service needs for tonnage to operational areas were fully supplied and ships were made available for considerable quantities of other goods essential for war purposes and civilian needs. Although current requirements were met it was found difficult to increase reserve stocks.

A separate function of the Board was the administration of various contracts between the Commonwealth Government, the United States of America Authorities, the Oversea Shipping Representatives' Association and various Shipping Companies under which agency and stevedoring services were rendered to official United States of America vessels in Australian waters under Reciprocal Aid arrangements.

3. **Commonwealth Government Ships' Chartering Committee.**—Prior to the war, the Westralian Farmers Limited had several vessels chartered, the number varying up to about sixteen. Most of these were for short periods, but at the outbreak of war, there were three on charter on terms of from 3 to 5 years, one of which, a British ship, was handed to the Ministry of War Transport; the second, the *Westralia*, the charter of which was transferred to the Commonwealth Government, became a prize at about the time she was due for renewal of charter; the third vessel, the *Brattdal*, which was subsequently sunk, was retained by Westralian Farmers Limited.

Under war conditions there was great difficulty in linking up sales of wheat with ships for the destination and shipment date required, and it was suggested to the Australian Wheat Board that ships should be time chartered. Time chartered ships had a twofold advantage—(1) To cover sales immediately with the knowledge that before the wheat had to be loaded there would be a possibility of securing another vessel on ordinary charter, leaving the time chartered vessel free for other business; (2) To carry wheat and flour sold by the Board for which no ordinary charter could be obtained. As a result, not only did these vessels carry large quantities of wheat and flour overseas, and so assist the Australian Wheat Board materially, but they enabled a much greater quantity of wheat and flour to be sold and subsequently lifted by other vessels. The Australian Wheat Board also agreed to carry any essential goods for the Government when convenient on the Australian Wheat Board's ships.

The shipping of wheat and flour from Australia in time chartered vessels meant that these vessels had to return to Australia after discharge and the Australian Wheat Board agreed that they should bring essential material back to Australia. The Australian Wheat Board, prior to the Commonwealth Government entering into the time chartering business, shipped in its time chartered vessels quantities of goods as varied as ore, coal, wheat, flour, timber, metals, phosphates, newsprint, sugar and bitumen.

In February, 1940, prior to the formation of the Committee, the Department of Commerce and Agriculture and the Australian Wheat Board were authorized to charter up to six vessels on behalf of the Commonwealth Government but this number proved quite inadequate and permission was obtained to secure all the vessels possible. As the business was assuming considerable magnitude, a formal Committee under the control of the Department of Commerce and Agriculture was formed in July, 1941, to control these shipping activities.

In November, 1942, the Committee came under the control of the newly formed Department of Supply and Shipping and in June, 1944, regulations defining its powers and functions were included in the National Security (Shipping Co-ordination) Regulations.

The original object of the Ships' Chartering Committee was purely to deal with overseas trade, and it was never expected that the ships would be used for more than occasional assistance on the coast. With the advent of Japan into the war, the limitations of the convoy system, and the demands of Naval and Military authorities, it was soon

found that to satisfy the needs of Victoria and South Australia for coal and of New South Wales for ore, greater assistance from the overseas vessels would be necessary, and the time chartered fleet was gradually built up. At the end of December, 1944, tonnage under the control of the Committee consisted of 26 vessels under time charter making a deadweight tonnage of 215,576 tons, one captured Italian vessel (deadweight tonnage 11,085 tons) and one requisitioned Danish vessel (deadweight tonnage 8,370 tons) making a total of 235,031 tons.

In addition to these vessels, the Committee also controlled all tonnage built by the Commonwealth Government. In June, 1945, seven "River" class vessels of 9,000 tons deadweight were in commission and a further six, then being built, were expected to be in commission early in 1946.

The overseas and interstate tonnages carried up to June, 1945, by vessels under the Committee's control were 3,314,075 and 6,853,477 respectively, the tonnages for the principal commodities being as follows:—Overseas: Cereals, 769,535; Phosphates, 741,317; War Stores, 686,414; General cargo to and from India, 475,248; Other General cargo, 128,141; Copper, Africa to Australia, 80,000; Nitrate, 139,704; Sugar, 157,592. Coastal: Iron ore, 3,246,478; Coal, 2,787,968; Coke, 171,668; Steel and Pig iron, 73,653; Sugar, 121,754; General, 385,224; Wheat, 44,600.

4. **Central and State Cargo Control Committees.**—(i) *General.* The Central Cargo Control Committee, with a local Committee in each State, was constituted under the National Security (Cargo Control) Regulations of 23rd April, 1942, which were repealed on 2nd June, 1944, and the powers and functions of these committees embodied in National Security (Shipping Co-ordination) Regulations.

The committees were established to provide for the orderly and expeditious disposal of goods arriving by sea and the punctual delivery at ship's side of goods for shipment with a view to ensuring the speedy discharge and loading of ships, to reduce the length of time that goods lay at wharfs, to prevent congestion, confusion and delay at the water-side and to make proper provision for the storage or other accommodation of the goods.

The committee worked directly under the Director of Shipping and each section interested in shipping and the handling of cargoes was directly represented. In addition liaison officers appointed by the Royal Australian Navy and the United States Army attended meetings as did representatives of the Chambers of Manufactures and Commerce. The fact that Port Authorities, Employees' Unions, Master Carriers, Transport and other Government authorities all had direct representation on the Committee, and that the Fighting Services and other interests were able to take part in the deliberations, ensured the closest co-operation and was responsible in no small part for the success which attended the efforts of the Committee.

The work of the Central Cargo Control Committee was closely associated with that of the Shipping Control Board, the Stevedoring Industry Commission, and the Commonwealth Land Transport Board, and the closest possible touch was maintained with these Commonwealth instrumentalities, and with the Australian and American Fighting Services.

Although State Committees were not so large as the Central Committee all interests concerned in shipping and the handling of cargoes were represented either by having direct membership or through the attendance of their representatives at meetings in an advisory capacity.

(ii) *Work of Committees.* The work of the Central Cargo Control Committee and the State Committees was, briefly, to render assistance to constituted authorities at all ports to keep wharves clear, and to exercise powers under the Regulations as from time to time required when the powers of the port or other Authorities were insufficient.

In order to avoid delay in the turn-round of ships and to meet any eventualities which might arise, attention was directed to improving the equipment of the ports by the provision of additional cranes, lighters, punts, and barges, in consultation with other cognate bodies. In addition to ports in capital cities the Committee actively participated

in the handling and clearance of cargo in outports, particularly in Townsville and Cairns which developed from comparatively minor ports to ports of major importance as the result of the war.

A Port Controller with all necessary authority was appointed in both Townsville and Cairns and the arrangement achieved marked success.

Facilities adequate to meet peace-time conditions in Townsville proved inadequate to cope with the very large increase in traffic and the Central Cargo Control Committee in collaboration with the Townsville Harbour Board, the Services, and all other interests concerned, effected many alterations and additions in port and shed accommodation.

(iii) *Cargo Protection Regulations.* The Central Cargo Control Committee was charged with the responsibility of administering the Cargo Protection Regulations also included in Statutory Rules No. 44 as Part VII. of National Security (Shipping Co-ordination) Regulations.

Schemes aimed at providing measures to detect and reduce pillage operated in the various ports, and, generally speaking, provided for more police assistance in relation to civil cargoes and on the Service side greater supervision by Army Special Investigation Branch (Maritime) Officers. In addition, Cargo Control Committee appointed a limited number of inspectors to patrol the wharfs and ensure that the various checks instituted by the Committee for ensuring efficient supervision of cargoes were observed by Shipping Companies, Transport Companies and others—in short, to see that loopholes for pillage were reduced to a minimum.

5. Port Equipment and Development Committee.—This Committee was constituted on the 26th January, 1943, to assist in solving the problems associated with the proper co-ordination of war-time shipping, the Interstate Conference of Australian Harbour Authorities having placed at the disposal of the Director of Shipping the combined technical knowledge and port administrative experience of the Port Authorities of the Commonwealth.

The functions of the Committee were generally to advise the Director of Shipping regarding the equipment and development for war purposes of the various ports of the Commonwealth, and, particularly, to undertake investigations and make reports and recommendations in relation to the operation of any port, the installation of port facilities and equipment, the execution of maintenance and developmental works, the performance of dredging, the allocation of essential harbour craft and plant and the provision of safeguards necessary in the event of damage to wharves and facilities from enemy action.

The Committee dealt with a wide variety of measures designed to expedite the turn-round of shipping and facilitate cargo movement, and, although the implementation of all schemes was not considered necessary owing to changing circumstances, several major works were carried out on recommendations of the Committee. Recommendations were made regarding the design, provision and distribution of cargo lighters of various types, and, following representations by the Committee, the construction of a number of tugs was undertaken to augment the towage facilities of the ports of the Commonwealth. Investigations were made regarding fire-fighting appliances at the various ports, the provision of dry-docking facilities in a capital port, the provision of heavy lift cranes, and other matters. The Committee made investigations for other Commonwealth organizations and, in conjunction with the Allied Works Council, investigated works for the Services, including dredging, in various ports of the Commonwealth.

6. Maritime Industry Commission.—This Commission was constituted under the National Security (Maritime Industry Regulations), gazetted on 2nd January, 1942, for the purpose of securing during the war the adequate and efficient manning of Australian merchant ships and the improvement and safeguarding of the conditions of all persons serving therein. The Commission was empowered to make orders providing for all or any of the following matters:—(a) the determination, variation or rescission of, or addition to the terms and conditions of employment of employees or any of such terms or conditions, in relation to, or as incidental to, the standard or ordinary hours of work in any

week of the employees in the maritime industry not exceeding forty-four; (b) the granting of leave to employees; (c) the accommodation and catering in ships for employees therein; (d) the provision of accommodation and catering for employees while on shore; (e) the manning of ships, the selection of ships' complements and the terms and conditions under which persons might become qualified for ranks or ratings; (f) the number of various classes of employees, classified according to their ranks and ratings, to be carried in any ship or class of ships; (g) preference in employment in ships; (h) the recognition and elevation of the status of an employee as performing essential war service on behalf of the Commonwealth of Australia; (i) the amount of payments to be made to employees by reason of war risks; (j) the employment of shore labour in respect of work in port which otherwise would be done by seamen; (k) the employment on ships, during the war, of persons who were usually engaged in employment ashore, and the protection of the rights, and interests of such persons in relation to their subsequent reinstatement in employment ashore, including the preservation of their existing and accruing rights; and (l) any matter which appeared to the Commission to be conducive to the purpose of these Regulations.

The Regulations provided that these Orders should have full force and effect, notwithstanding anything contained in any law of the Commonwealth or of a State or Territory of the Commonwealth or any award, order or determination of any Industrial Tribunal or any Industrial Agreement.

The Maritime Industry Commission comprising a Chairman and eight other members endeavoured to reach agreement on matters under discussion before putting any question to a vote. Any urgent matter might, with the permission of the Chairman, be brought up at the Commission without prior notice and at almost every meeting of the Commission members availed themselves of this provision in the by-laws. Although meetings of the Commission were held *in camera*, persons having a direct interest in particular matters under discussion were permitted to attend and to make representations in person. The Commission, as occasion demanded, summoned representatives of interested parties to appear before it.

7. Stevedoring Industry Commission.—Prior to the introduction of the Stevedoring Industry Commission in April, 1942, the method of engaging labour at practically all ports throughout the Commonwealth was on a free selection basis. Early in 1942, however, the general waterfront position was such that it became obvious that some system of regulating employment and control of waterside labour would be necessary if the maximum use was to be made of ships by giving them the speediest turn-round possible. Following on a series of conferences with the interests concerned, the Stevedoring Industry Commission regulations were promulgated and the Commission was appointed on 2nd April, 1942. The functions of the Commission as provided in regulations were:—(a) to co-ordinate the use of labour in stevedoring operations; (b) generally to control and regulate waterside work and stevedoring operations; and (c) to ensure that adequate provision was made for the protection of waterside workers against injury, and wharves against damage, from or in connexion with attacks by an enemy, with a view to expediting the loading and unloading of ships.

The Commission comprised representatives of oversea, interstate and stevedoring interests together with representatives of the Waterside Workers' Federation, also a senior officer of the Public Service (without a vote), operating under the Chairmanship of the Chief Judge of the Commonwealth Court of Conciliation and Arbitration.

The Commission set up at all ports Waterside Employment Committees representing employers and employees and presided over by an independent Chairman, determined the numbers of men (port quota) required to work each port and formed a register of such waterside workers at each port as were required to make the quota.

The immediate effect was the release, through the Man-Power authorities, to other employment of large numbers of men at some ports who had previously claimed to be following waterside work. Whilst waterside work was not a protected industry, the

Man-Power Directorate for all practical purposes regarded it as such on the understanding that the Commission ensured that only the minimum number of men consistent with the need for the expeditious handling of cargo were retained in the industry.

The waterside workers still retained the right to withhold their services from any particular job urgently requiring labour and as vessels were sailing in convoys it became absolutely essential that they be worked in some order of priority which would ensure their departure and arrival according to schedule. The Commission therefore made orders in respect of all main ports providing, amongst other things, for the allocation of labour by an officer of the Commission, and further that a refusal on the part of any man to go to work for which he had been allocated would expose him to disciplinary action by the Waterside Employment Committee. Conversely, the obligation was placed on employers to accept any labour allocated to them. The men were now obliged to present themselves for employment each day and undertake whatever work was required of them. By this means, the best possible use of labour was obtained and, whereas it was estimated that immediately prior to the introduction of the Commission some 26,000 men were claiming to follow the waterfront industry at all ports throughout the Commonwealth, that number had been reduced in June, 1945, to approximately 19,000 men.

By gradual stages the Commission brought about the position where ships were worked in the order of priority and, where "round the clock" working was required to give an urgent ship the best possible despatch, labour was forthcoming. There were, of course, exceptions at certain ports where labour supply was insufficient to meet peak requirements and a scheme of registering reserve waterside workers was introduced which proved of great assistance in meeting sudden rushes of shipping.

From time to time the Commission transferred labour from one port where temporary slackness existed to another port where the local labour could not cope with the demands being made upon it.

In addition to legislating for the greatest use and mobility of labour, the Commission prescribed conditions of employment to meet the needs brought about by the war situation and by the exercise of strict discipline ensured that work proceeded with the minimum amount of friction.

8. Commonwealth Salvage Board.—The Commonwealth Salvage Board was constituted under National Security (Salvage Board) Regulations being Statutory Rule 1942 No. 129 as amended by Statutory Rules 1942 No. 546 and 1943 No. 49. The Regulation governing the formation of the Board became operative on 14th March, 1942.

The Board was established for the purpose of organizing in advance an effective salvage service for ships subjected to enemy action or suffering marine damage so as to ensure, if at all possible, the safe delivery in Australia of the important war cargoes carried, also for the purpose of raising sunken ships and bringing them to a port where repairs could be effected, and the ship once again placed in commission.

Prior to the war no really effective salvage service existed, and the Board in a comparatively short time built up an efficient salvage service throughout the Commonwealth. Captain J. P. Williams was appointed Chief Salvage Officer and other competent salvage officers were appointed in each State. Valuable salvage gear and equipment were acquired from local sources and the United States of America and depots were established at the main Commonwealth ports. A deep sea tug and a small coastal vessel were equipped for salvage work, and two specially built salvage ships and three rescue tugs built in the United States of America were delivered to the Commonwealth under lend-lease arrangements. A divers' training school was established and a number of divers were trained to augment the small number of experienced divers engaged by the Board.

The Board from its inception engaged continuously in salvage operations on the Australian coast and in the New Guinea Area. A considerable number of Allied vessels were refloated and urgent and irreplaceable cargoes required for war purposes were saved.

The services of the Board's trained staff were also made available to an Allied Government for salvage operations in India. The towage of landing craft, barges and other items of equipment for the armed forces between Australia and New Guinea provided constant occupation for the Board's tugs when not engaged on salvage operations, and close liaison with Navy was maintained.

§ 8. Miscellaneous.

1. **Lighthouses.**—*Transport and Communication Bulletin* No. 14, published by this Bureau, contains a list of the principal lighthouses on the coast of Australia, giving details of the location, number, colour, character, period, candle-power and visibility of each light so far as particulars were available.

2. **Distances by Sea.**—A statement giving the distances by sea between the ports of the capital cities of Australia and the most important ports in other countries which trade with Australia is also included in *Transport and Communication Bulletin* No. 14.

3. **Shipping Freight Rates.**—The *Quarterly Summary of Australian Statistics* gives a list of the ruling freight rates for general merchandise both in respect of oversea and interstate shipments. The latest figures available, which give the rates current at 30th September, 1945, show that the rate for general merchandise from Australia to United Kingdom and Continent was 107s. od. per ton weight or measurement, while the rates for wheat (parcels) and wool (greasy) were respectively 135s. 6d. per ton weight and 1 ¹¹/₁₆ d. per lb. These rates, which are expressed in sterling, are subject to an adjustment of 25 per cent. when freight is prepaid in Australia and a "war-time risk" surcharge of 15 per cent.

4. **Depth of Water at Main Ports.**—A table, compiled from information supplied by the Director of Navigation, showing the depth of water at the main ports of Australia at 1st January, 1941, is included in *Transport and Communication Bulletin* No. 31.

5. **Shipping Casualties.**—Courts of Marine Inquiry are constituted by a Magistrate assisted by skilled assessors, and when necessary are held at the principal port in each State and at Launceston (Tasmania). Such courts have power to deal with the certificates of officers who are found at fault. Particulars of shipping casualties reported on or near the coast during 1939 are shown in *Transport and Communication Bulletin* No. 31. This information also was furnished by the Director of Navigation.

6. **Commonwealth Navigation and Shipping Legislation.**—An account in some detail of the Commonwealth navigation and shipping legislation is contained in *Official Year Book* No. 17 (pp. 1053-5).

Under the provisions of the Navigation Act the coasting trade of Australia in passengers and cargo is reserved by Section 288 to ships licensed to engage in that trade. Licences are granted to ships complying with Australian conditions respecting wages, manning, crew accommodation, and so on, stipulations which have confined the trade to Australian-owned vessels.

Provision was made in the Act for permits to be granted to unlicensed British ships to carry cargo and passengers on the coast when it was shown that the licensed service was inadequate. The permit system, however, was not entirely satisfactory and in 1926 the Act was amended to allow the Governor-General, by notice in the *Gazette*, to permit unlicensed British ships of a specified size and speed to engage in the passenger trade between particular ports. Such a permit, however, could only be granted when it was shown that the tourist traffic was being injured or retarded. By a further amendment in 1935, this concession was revised to permit unlicensed British ships of not less than 10,000 tons and a sea speed of not less than 14 knots to carry passengers between any two ports in Australia not connected by rail. In every case the voyage must be made in one ship without break of journey, transhipment, or second call at any intermediate port. On arriving at the port of destination the passenger may be taken on to the next port of call of the ship, which may be his first port of embarkation, or a further port not connected by rail.

In the Navigation Act of 1935 also the carriage of wireless equipment was extended to all ships engaged in interstate trade. A similar provision for intra-state vessels has been made by some of the States.

The Navigation (Maritime Conventions) Act of 1934 was an amendment of the Navigation Act to enable the Commonwealth to give effect to the provisions of a number of maritime conferences of recent years, of which the most important were those dealing with the safety of life at sea and load lines.

The war-time control of shipping is dealt with in Section 7.

7. Ports and Harbours.—A report in two volumes on "Transport in Australia," with special reference to Ports and Harbours facilities, was submitted to the Commonwealth Government by Sir George Buchanan, and published as two Parliamentary Papers (No. 86 printed 14th March, 1927, and No. 108 printed 9th May, 1927).

B. RAILWAYS.

§ 1. General.

1. Introduction.—The policy of Government ownership and control of railways has been adopted in each State and at 30th June, 1944, only 705 route miles of the 27,918 open for general traffic in Australia were privately owned, while 25,012 route miles and 2,201 route miles were owned by the State Governments and the Commonwealth respectively. In the following tables details of the four lines owned by the Commonwealth are grouped and shown with the totals for the various State-owned systems. Separate particulars for each Commonwealth line are given in *Transport and Communication Bulletin* No. 33, issued by this Bureau, and also in *Official Year Book* No. 31, p. 125 et seq.

2. Railway Communication in Australia.—An account of the progress of railway construction in Australia since the opening of the first line in 1854 will be found in *Official Year Book* No. 6, p. 681. Further information regarding railway communication in Australia is given in *Official Year Book* No. 22, pp. 259–61.

3. Proposals for Standardization of Railway Gauges.—In March, 1944, Sir Harold Clapp, Director-General of Land Transport, Commonwealth Department of Transport and formerly Chairman of Commissioners, Victorian Railways, was requested by the Commonwealth Government to submit a report and recommendation regarding the standardization of Australia's railway gauges on the basis of a 4 ft. 8½ in. gauge.

The report, which also covers the construction of certain strategical and developmental railways, was submitted in March, 1945, and the projects recommended, estimated to cost £76,751,000, are as follows:—(a) construction of an independent standard gauge line from Fremantle–Perth to Kalgoorlie (419 miles); (b) conversion to standard gauge of the entire South Australian 5 ft. 3 in. gauge system and the 3 ft. 6 in. gauge lines of the South East Division (1,760 miles); (c) conversion to standard gauge of the entire Victorian 5 ft. 3 in. gauge system, including the Upper Ferntree Gully–Emerald section of the Gembrook 2 ft. 6 in. gauge line (4,980 miles); (d) acquisition of the Silverton Tramway Company's line (36 miles) between Cockburn (South Australia) and Broken Hill (New South Wales) and the conversion to standard gauge of such line, as well as the 3 ft. 6 in. gauge lines of the Peterborough Division of the South Australian Railways (366 miles) to provide a standard gauge line between Port Pirie and Broken Hill; (e) provision of a standard gauge strategic and developmental railway linking Bourke (New South Wales) with Townsville and Dajarra and tributary lines (Queensland) via Cunnamulla, Charleville, Blackall, Longreach, Winton and Hughenden (1,544 miles); (f) construction of a standard gauge strategic and developmental railway between Dajarra (Queensland) and Birdum (Northern Territory) and the conversion to standard gauge of the Birdum–Darwin line (961 miles)

Other recommendations are that on agreement being reached between the Commonwealth and the States as to the carrying out of the foregoing projects arrangements be made for complete surveys, plans and estimates to be prepared for the standardization of the Queensland and Western Australian Railways not covered by the proposals mentioned.

The conversion to standard gauge of the 3 ft. 6 in. gauge Central Australia Railway (Port Augusta to Alice Springs) and the extension thereof beyond the existing terminal at Alice Springs is not recommended, neither is the introduction of standard gauge in Tasmania.

Projects (a) to (e) are estimated to take up to eight years to complete and (f) three years later. The work of constructing the last-mentioned line (Northern Territory) which is dependent on the completion of the standard gauge railway through Central Queensland to Dajarra would not be commenced until the sixth year.

Man-power to be absorbed in the projects would be equivalent to approximately 103,000 man-years. Something like 850,000 tons of steel for rails and fastenings, metal sleepers, rolling stock construction, etc., would be required, as well as 12,000,000 timber sleepers and 26 million super. feet of sawn timber.

The project involves the conversion of 8,470 miles of existing railways, the construction of 1,600 miles of new railways, and the building of 578 locomotives and 9,746 items of rolling stock. In addition under the scheme 412 locomotives and 26,000 items of rolling stock will be converted.

The report includes a chapter on standardization and modernization of railway equipment and the opinion is expressed that "standardization without modernization would not be justified".

Modernization proposals cover increased speeds of trains, welding of rails, reductions in the tare weight of passenger and goods rolling-stock by the use of special alloy steels such as "Cor-Ten", modernization of passenger cars, greater use of electric traction on dense traffic routes, Diesel-electric locomotives for special work, Fork lift trucks and the establishment of a car and wagon interchange bureau.

The utilization of appropriate government ordnance and munitions factories and annexes with the existing personnel and plant is recommended to assist existing railway workshops in the very large locomotive and rolling stock construction programme involved.

The Commonwealth Government has indicated its desire to bring about standardization of gauges and Commonwealth-State discussions are now taking place with a view to obtaining agreement on the proposals submitted.

4. Government Railways. Lines under Construction and Lines Authorized, 1944.—

(i) *Lines under Construction.* In spite of the great extensions of State railways since 1875 and also the construction of various railways by the Commonwealth Government, there are still, in some States, immense areas of country which are as yet practically undeveloped, and in which little in the nature of permanent settlement has been accomplished. The general policy of the States was to extend the existing lines inland in the form of light railways as settlement increased, and while it is true that lines which were not likely to be commercially successful in the immediate future have been constructed from time to time for the purpose of encouraging settlement, the general principle that the railways should be self-supporting was kept in view.

(a) *New South Wales.* Construction work on the Sandy Hollow to Maryvale line (approximately 147 miles) and on the connecting link between St. James and Wynyard stations of the underground railway of Sydney has practically ceased for the time being. Work was continued on the new Hawkesbury River railway bridge and approach tunnels, although retarded by the withdrawal of men and plant for urgent defence works. The duplication of track on the main Southern line between Cootamundra and Junee has made good progress, and work was continued in stages on the comprehensive long-range scheme for the quadruplication of tracks on the main Western line between Lidcombe and Penrith.

(b) *Other.* At 30th June, 1944, no construction work on new lines was in progress in Victoria, Queensland, South Australia, Western Australia, Tasmania, nor for the Commonwealth Government.

(ii) *Lines Authorized for Construction.* (a) *New South Wales.* At 30th June, 1944, the following lines had been authorized for construction but not commenced:—Gilgandra to Collie (21.54 miles); Jerilderie towards Deniliquin (25 miles); Rand to Bull Plain (27.55 miles); Canowindra to Gregra (33.87 miles); St. Leonards to Eastwood (9.07 miles); Inverell to Ashford (32 miles); Gwabegar to Burren Junction (36.25 miles); Gwabegar to Pilliga (18.50 miles); Eastern Suburbs to Bondi (7.75 miles); and Western Suburbs to Western Road (5.55 miles); a total distance of 217.08 miles.

(b) *Victoria.* At the 30th June, 1944, the total distance of new lines authorised, but on which construction had not commenced, was 39.50 miles as follows:—5 ft. 3 in. gauge: La La Siding to Big Pat's Creek (2.50 miles); Casterton to Nangeela (9 miles); Orbost to Brodribb (6 miles); and Mildura to Gol Gol (22 miles—in New South Wales) authorized under the Border Railways Act 1922.

(c) *Queensland.* In addition to the new lines upon which some work has been done, Parliament has authorized the construction of the following parts of the Great Western Railway: Section A, from Quilpie to Eromanga (120 miles); Section B, from Powell's Creek (22.4 miles); Section C, from 37-Mile to Springvale (32.4 miles); and Section D, from Moonah Creek (216 miles). The following lines were also authorized for construction: Texas to Silverspur (9 miles); Mount Edwards to Maryvale (28 miles); Lanefield to Rosevale (17 miles); Gatton to Mount Sylvia (11 miles); Wandoan to Taroom (42 miles); Dirranbandi extension (52 miles); Yarraman to Nanango (16 miles); Brooloo to Kenilworth (10 miles); Dobbryn to Myally Creek (50 miles); and Perramon towards Boongee (11 miles), making a total distance of 1,130 miles.

(d) *South Australia.* Parliament has authorized the construction of a line on the 3 ft. 6 in. gauge from Kielpa to Mangalo Hall (26.25 miles). The survey has been completed, but the work cannot be started without a special resolution of both Houses of Parliament.

(e) *Western Australia.* The following lines were authorized for construction up to 30th June, 1944:—Yarramongy to Merredin (85 miles); Brookton to Dale River (28 miles); Boyup Brook to Cranbrook (95.23 miles); Manjimup to Mount Barker (107 miles); Leighton to Robb's Jetty (4.62 miles); Southern Cross—Southwards (27.38 miles); Yuna to Dartmoor (52 miles); a total distance of 399.23 miles. The surveys have been completed in respect of all the above lines, except the Boyup Brook to Cranbrook, the Manjimup to Mount Barker, and the Leighton to Robb's Jetty lines.

(f) *Other.* There were no new railways authorized in Tasmania nor for the Commonwealth Government at 30th June, 1944.

5. **Grafton-South Brisbane (Uniform Gauge) Line.** The 4 ft. 8½ in. gauge line from Grafton (New South Wales) to Brisbane (Queensland) which was opened for traffic on 27th September, 1930, was constructed under agreement between the Commonwealth and the States of New South Wales and Queensland to overcome the break of gauge between Sydney and Brisbane; and was the first step towards uniform gauge railway communication between the capitals of the mainland States. To 30th June, 1944, the capital cost of construction and equipment was £4,362,500, and the working of the line, which is the responsibility of the New South Wales and Queensland Railway Commissioners, resulted in a profit of £186,959 being shown on the New South Wales section and a profit of £278,849 on the Queensland section. The interest charge for the year 1943-44 was £225,939, payable as follows—New South Wales, £72,179, and Queensland, £27,029, the remainder, £126,731, being borne by the Commonwealth. Figures relating to the operations, etc., of the line are incorporated as far as possible with those for New South Wales and Queensland in the tables which follow. Further particulars of the construction of the line will be found in Official Year Book, No. 31, p. 122.

6. **Mileage Open for Traffic, all Lines.**—(i) *General.* Almost all the railways open for general traffic in Australia are owned and controlled by the State or Commonwealth Governments. Private lines have been laid down for the purpose of opening up forest lands, mining districts or sugar areas. These lines are not generally used for the conveyance of passengers or the public conveyance of goods, and it should be understood that the private lines included in the tables below form only a small part of all private railways in Australia.

The following table shows the route mileage of Commonwealth, State and private lines open for general traffic in each State for the year 1938-39 and each of the years 1940-41 to 1943-44 :—

GOVERNMENT AND PRIVATE RAILWAYS : MILEAGE OPEN.

State or Territory.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
	Miles.	Miles.	Miles.	Miles.	Miles.
New South Wales ..	6,211	6,196	6,195	6,195	6,194
Victoria ..	4,784	4,784	4,791	4,783	4,761
Queensland ..	6,750	6,750	6,750	6,750	6,748
South Australia ..	3,860	3,861	3,861	3,850	3,850
Western Australia ..	5,109	5,112	5,112	5,112	5,112
Tasmania ..	789	758	758	757	758
Northern Territory ..	490	490	490	490	490
Aust. Cap. Territory ..	5	5	5	5	5
Australia ..	27,998	27,956	27,962	27,942	27,918

In previous issues of the Official Year Book particulars of mileage open are given for different periods from 1855 onwards. (See No. 15, p. 537.)

(ii) *Government and Private Lines Separately.* The next table shows for each State (a) the length of lines open for traffic owned by the State Government, and by the Commonwealth Government in that State and; (b) the length of private lines available for general use by the public :—

GOVERNMENT AND PRIVATE RAILWAYS : MILEAGE CLASSIFIED, 1943-44.

State or Territory.	Government Lines—		Private Lines available for General Traffic.	Total Open for General Traffic.
	State.	Commonwealth.		
	Miles.	Miles.	Miles.	Miles.
New South Wales ..	6,128	..	66	6,194
Victoria ..	4,748	..	13	4,761
Queensland ..	6,566	..	182	6,748
South Australia ..	2,547	1,252	51	3,850
Western Australia ..	4,381	454	277	5,112
Tasmania ..	642	..	116	758
Northern Territory ..	..	490	..	490
Aust. Cap. Territory ..	..	5	..	5
Australia ..	25,012	2,201	705	27,918

7. *Comparative Railway Facilities.*—The mileage of line open to the public for general traffic (including both Government and private lines) is shown in the following statement in relation to both population and area at 30th June, 1944 :—

GOVERNMENT AND PRIVATE RAILWAYS : COMPARISON OF FACILITIES, 1943-44.

Particulars.	N.S.W.	Vic.	Q'd.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Mileage of Railway—									
Per 1,000 of population ..	2.17	2.39	6.38	6.22	10.59	3.11	95.75	0.35	3.84
Per 1,000 sq. miles of Territory ..	20.02	54.17	10.06	10.13	5.24	28.91	0.94	5.32	9.39

8. **Classification of Lines according to Gauge, 1943-44.**—The next table gives a classification according to gauge of the route mileage open of (a) Commonwealth railways, given in the State or Territory in which situated; (b) State railways; and (c) Private railways open to the public for general traffic. Particulars of Government railways are up to 30th June, 1944, and of private railways open for general traffic to 31st December, 1944, as nearly as possible.

GOVERNMENT AND PRIVATE RAILWAYS : GAUGES, 1943-44.

State or Territory in which situated.	Route mileage having a gauge of—					Total.
	5 ft. 3 in.	4 ft. 8½ in.	3 ft. 6 in.	2 ft. 6 in.	2 ft. 0 in.	
COMMONWEALTH RAILWAYS.						
	Miles..	Miles.	Miles.	Miles.	Miles.	Miles.
South Australia	654	598	..	..	1,252
Western Australia	454	..	..	..	454
Northern Territory	490	..	..	490
Aust. Cap. Territory	5	..	..	..	5
Total	1,113	1,088	..	..	2,201

STATE RAILWAYS.

New South Wales ..	..	6,128	..	..	..	6,128
Victoria ..	4,634	..	..	114	..	4,748
Queensland ..	..	69	6,467	..	30	6,566
South Australia ..	1,480	..	1,067	..	..	2,547
Western Australia ..	..	..	4,381	..	..	4,381
Tasmania ..	..	..	642	..	..	642
Total ..	6,114	6,197	12,557	114	30	25,012

PRIVATE RAILWAYS OPEN FOR GENERAL TRAFFIC.

New South Wales ..	..	29	37	..	..	66
Victoria ..	13	..	..	..	..	13
Queensland ..	..	..	80	..	102	182
South Australia ..	..	..	51	..	..	51
Western Australia ..	..	..	277	..	..	277
Tasmania ..	..	..	110	..	6	116
Total ..	13	29	555	..	108	705

ALL RAILWAYS OPEN FOR GENERAL TRAFFIC.

New South Wales ..	..	6,157	37	..	..	6,194
Victoria ..	4,647	..	..	114	..	4,761
Queensland ..	..	69	6,547	..	132	6,748
South Australia ..	1,480	654	1,716	..	..	3,850
Western Australia ..	..	454	4,658	..	..	5,112
Tasmania ..	..	..	752	..	6	758
Northern Territory ..	..	..	490	..	..	490
Aust. Cap. Territory ..	..	5	..	..	..	5
GRAND TOTAL	6,127	7,339	14,200	114	138	27,918

A table showing the mileage of Government railways open to 30th June, 1943, according to gauge, will be found in the *Transport and Communication Bulletin* No. 34, p. 5. Details of Private Railways open for general traffic in 1942-43 were the same as those for 1941-42 shown in Official Year Book No. 35, p. 111.

9. **Summary of Operations, 1943-44.**—In the following table a summary is given of the working of all railways open for general traffic in Australia during the year ended 30th June, 1944. In order to provide more accurate averages the basis of compilation has been altered as from 1941-42 in respect of the following items:—Capital cost per mile open, gross revenue, working expenses and net revenue per train mile run (private railways only), and average wages. The comparison with figures published for earlier years is thereby impaired:—

GOVERNMENT AND PRIVATE RAILWAYS SUMMARY OF OPERATIONS, 1943-44.

Particulars.	Common-wealth Railways.	State Railways.	Private Railways. (a)	Total for Australia.
Mileage open (route) 30th June, 1944 miles	2,201	25,012	705	27,918
Capital cost £	17,823,993	307,214,645	5,209,901	330,248,539
Cost per mile £	8,098	12,283	8,876	11,832
Gross revenue £	3,459,204	78,850,189	921,891	83,231,284
" " per train-mile d.	240.46	214.28	195.98	214.87
Working expenses £	2,520,564	64,057,215	806,756	67,384,535
" " per train-mile d.	175.21	174.08	133.75	173.95
Net revenue £	938,640	14,792,974	115,135	15,846,749
" " per train-mile d.	65.25	40.20	61.53	40.92
Train-miles run miles	3,452,576	88,313,653	1,202,389	92,968,618
Passenger-journeys No.	522,213	532,117,503	1,982,317	534,622,033
Tons of goods, etc., carried .. tons	515,574	41,450,142	3,472,487	45,438,203
Average number of employees .. No.	(b) 3,506	(b) 120,332	(c) 1,285	125,123
" wage £	397	364	346	365

(a) Incomplete. Full particulars not available for all items. (b) Excludes construction staff. (c) Employees at 31st December, 1944.

Details shown above relating to capital cost do not include particulars of amounts totalling about £61.5 million, written off during the past seventeen years. If these are taken into account, the cost per mile for State Railways is increased to £14.741 and for all railways to £14.035.

§ 2. Government Railways.

1. **Cost of Construction and Equipment.**—The following table gives particulars of the mileage open and the capital cost of Government railways in Australia. The cost shown for Australia (£325,038,638) does not represent the total expenditure on construction and equipment, as legislation has been introduced in Victoria, Queensland, South Australia and Tasmania, for the purpose of reducing the capital indebtedness of the railways. Figures relating to capital cost do not include charges for works in the course of construction, surveys, discounts and flotation charges on loans allocated to the railways.

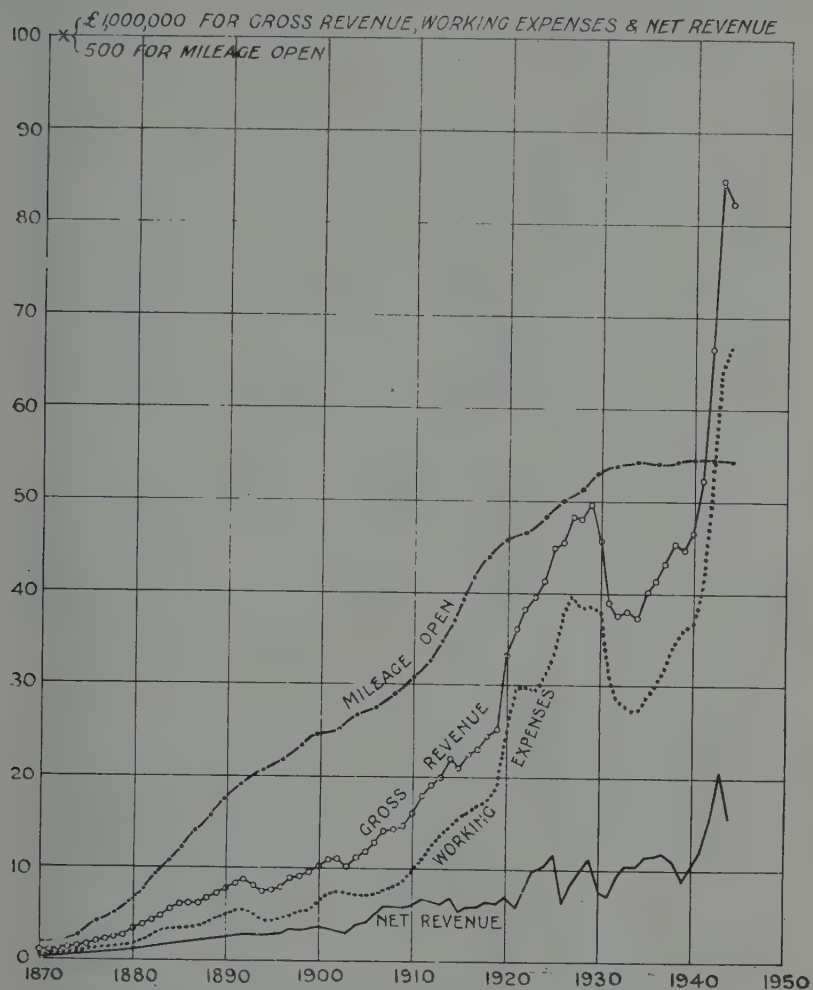
GOVERNMENT RAILWAYS : MILEAGE AND COST TO 30TH JUNE, 1944.

System.	Mileage Open.		Total Cost of Construction and Equipment.	Average Cost per Route-Mile Open.	Cost per Head of Population.	Route Mileage per 1,000 of Population
	Route.	Track.				
	Miles.	Miles.	£	£	£	Miles.
New South Wales	6,128	8,350	152,144,668	24,828	53.29	2.15
Victoria (a) ..	4,748	6,119	52,746,555	11,109	26.52	2.39
Queensland (a) ..	6,566	7,449	39,907,071	6,078	37.72	6.21
South Australia (a)	2,547	3,134	30,673,614	12,043	49.59	4.11
Western Australia	4,381	4,840	26,530,724	6,056	54.99	9.09
Tasmania (a) ..	642	694	2,765,041	4,307	11.33	2.63
Commonwealth ..	2,201	2,340	17,823,993	8,098	..	..
Australia (a) ..	27,213	32,926	325,038,638	11,944	44.73	3.75

(a) See following paragraph. Line, £2,446,972.

(b) Includes Commonwealth proportion Grafton-South Brisbane

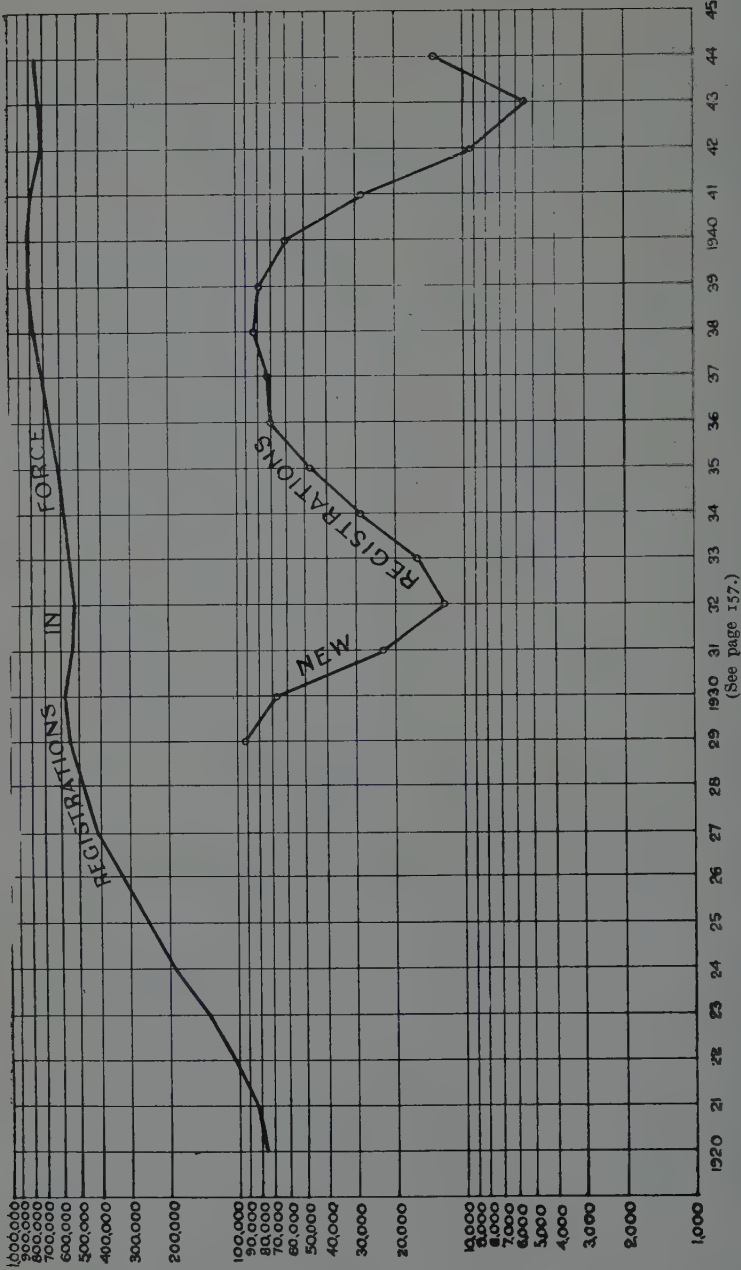
FINANCIAL POSITION OF THE GOVERNMENT RAILWAYS OF AUSTRALIA, 1870 TO 1944.



EXPLANATION.—The base of each square represents throughout ten years. The significance of the vertical height of each square varies according to the nature of the several curves.

In the curves for (i) gross revenue ; (ii) working expenses ; and (iii) net revenue, the vertical side of each square represents £10,000,000. The mileage open is shown by a broken line, the vertical side of each square representing 5,000 miles.

MOTOR VEHICLE REGISTRATION—AUSTRALIA, 1920 TO 1944.



(See page 157.)

EXPLANATION.—This is a ratio graph, the vertical scale being logarithmic, and the curves rise and fall according to the rate of increase or decrease. Actual numbers are indicated by the scale at the side of the graph.

The graphic show for all motor vehicles other than motor cycles the registrations in force at 30th June each year and the number of new registrations during the year.

The reductions made in the capital indebtedness referred to above were:—Victoria, £25,684,423; Queensland, £28,000,000; South Australia, £3,088,986; and Tasmania, £4,738,000. After adding these figures to the capital costs of the respective States and adjusting the route-mileage for New South Wales and Queensland to exclude portions of the Grafton-South Brisbane Line, the cost per route-mile open in each State and for the Commonwealth railways is as follows:—New South Wales, £24,600; Victoria, £16,519; Queensland, £10,263; South Australia, £13,256; Western Australia, £6,056; Tasmania, £11,687; Commonwealth, £8,098; and for all Government railways in Australia, £14,205. The lowest average cost is in Western Australia, and the highest is in New South Wales. Very few engineering difficulties were encountered in Western Australia, and the fact that contractors were permitted to carry traffic during the term of their contract considerably reduced expenditure.

Adjusted figures for the cost per head of population for each State and for Australia are as follows:—New South Wales, £52.81; Victoria, £39.43; Queensland, £63.69; South Australia, £54.58; Western Australia, £54.99; Tasmania, £30.74; all Government railways in Australia, £53.20.

2. **Expenditure on Construction and Equipment from Revenue and from Loans:—** The following table gives particulars of the expenditure on construction and equipment from revenue and from loans:—

**GOVERNMENT RAILWAYS : CAPITAL EXPENDITURE FROM REVENUE
AND FROM LOANS.**

System.	Expenditure from Revenue to 30th June, 1944.	Net Loan Expenditure.			Total to 30th June, 1944.
		1938-39.	1942-43.	1943-44.	
	£.	£	£	£	£
New South Wales ..	666,864	2,002,287	1,550,731	1,509,430	158,663,375
Victoria ..	a 6,210,519	(b) 354,259	(b) 540,441	(b) 486,388	b 79,262,882
Queensland ..	..	489,603	181,866	408,451	66,813,025
South Australia ..	..	261,006	414,691	370,387	36,253,284
Western Australia ..	633,808	(c) 195,111	6,644	14,951	25,728,522
Tasmania ..	18,121	34,558	103,094	260,819	(d) 7,774,462
Commonwealth ..	2,971,327	339	Cr. 34,746	Cr. 9,698	11,368,578
Australia ..	10,500,639	3,336,485	2,762,721	3,040,728	£388,311,100

(a) From proceeds of sale of State lands, Consolidated Revenue Fund, National Recovery Loan, etc.
 (b) Gross Loan Expenditure. (c) Includes expenditure on railways provided in Unemployment Relief work programmes. (d) Includes Losses funded. (e) Includes £2,446,972 Commonwealth Loan Expenditure on Grafton-South Brisbane Line.

3. **Gross Revenue.**—(i) *General.* The total revenue from all sources, the revenue per average mile worked and the revenue per train-mile run during the years 1940-41 to 1943-44 in comparison with 1938-39 were as follows:—

GOVERNMENT RAILWAYS : GROSS REVENUE.

Year.	N.S.W.(a)	Vic.(b)	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth.	Australia.
TOTAL GROSS REVENUE.								
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1938-39 ..	19,946	9,284	7,798	3,119	3,599	487	547	44,780
1940-41 ..	24,016	11,239	8,415	3,512	3,572	600	971	52,325
1941-42 ..	28,487	14,520	11,654	4,944	3,996	686	2,195	66,482
1942-43 ..	34,872	17,030	18,027	5,810	4,418	842	3,747	84,746
1943-44 ..	35,301	15,882	16,430	5,979	4,387	871	3,459	82,309

(a) Includes £800,000 per annum contribution from consolidated revenue towards losses on working of country development lines. (b) Includes the following recoups by the Treasury—1938-39, £10,000 guarantee in respect of losses on certain lines; and in 1940-41, 1941-42, 1942-43 and 1943-44, £39,000, £36,000, £357,000 and £270,500, respectively, being recoups of losses resulting from reduction in suburban fares and Defence Force fare concessions.

GOVERNMENT RAILWAYS: GROSS REVENUE—*continued.*

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth.	Australia
GROSS REVENUE PER AVERAGE MILE WORKED.								
	£	£	£	£	£	£	£	£
1938-39 ..	3,263	1,953	1,188	1,220	822	740	248	1,645
1940-41 ..	3,920	2,362	1,281	1,373	815	935	441	1,921
1941-42 ..	4,650	3,060	1,775	1,933	912	1,069	997	2,442
1942-43 ..	5,691	3,580	2,745	2,280	1,008	1,313	1,702	3,113
1943-44 ..	5,761	3,345	2,502	2,348	1,001	1,357	1,572	3,025

GROSS REVENUE PER TRAIN-MILE RUN.								
	d.	d.	d.	d.	d.	d.	d.	d.
1938-39 ..	159.01	124.54	134.38	121.19	131.38	61.30	145.42	138.70
1940-41 ..	178.53	151.82	138.30	143.07	139.53	66.45	188.86	156.80
1941-42 ..	187.99	190.96	170.59	179.81	150.92	75.06	226.91	180.36
1942-43 ..	214.60	221.69	217.95	205.32	167.24	91.21	258.88	211.62
1943-44 ..	228.36	232.23	199.21	211.75	174.20	95.66	240.46	215.27

(ii) *Coaching, Goods and Miscellaneous Receipts.* (a) *Totals.* The gross revenue is composed of (a) receipts from coaching traffic, including the carriage of mails, horses, parcels, etc., by passenger trains; (b) receipts from the carriage of goods and live stock; and (c) rents and miscellaneous items. The following table shows the gross revenue for 1938-39 and 1940-41 to 1943-44 classified according to the three chief sources of receipts. The total of the three items specified has already been given in the preceding paragraph.

GOVERNMENT RAILWAYS: COACHING, GOODS AND MISCELLANEOUS RECEIPTS.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth.	Australia
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
COACHING TRAFFIC RECEIPTS.								
1938-39 ..	6,877	4,286	2,057	754	704	152	194	15,024
1940-41 ..	8,499	5,436	2,235	976	826	188	356	18,516
1941-42 ..	10,639	6,820	3,025	1,492	1,112	223	669	23,980
1942-43 ..	12,766	7,647	4,674	1,703	1,360	314	961	29,425
1943-44 ..	12,867	7,174	4,861	1,671	1,426	310	940	29,249

GOODS AND LIVE STOCK TRAFFIC RECEIPTS.

1938-39 ..	10,356	4,276	5,474	2,144	2,807	318	224	25,599
1940-41 ..	12,415	4,860	5,808	2,261	2,651	392	421	28,808
1941-42 ..	14,387	6,573	8,239	3,057	2,736	438	1,342	36,772
1942-43 ..	18,240	8,141	12,732	3,649	2,881	490	2,712	48,845
1943-44 ..	18,408	7,485	10,842	3,720	2,789	516	2,434	46,194

MISCELLANEOUS RECEIPTS.

	(a)	(b)						
1938-39 ..	2,713	722	266	222	88	17	129	4,157
1940-41 ..	3,101	944	372	276	94	20	194	5,001
1941-42 ..	3,461	1,126	390	395	148	26	184	5,730
1942-43 ..	3,866	1,242	621	458	177	38	74	6,476
1943-44 ..	4,026	1,223	727	588	172	45	85	6,866

(a) See note (a) to Gross Revenue table above.

(b) See note (b) to Gross Revenue table above

(b) *Percentages.* The following table shows for each of the years 1942-43 and 1943-44 the percentage which each class of receipts bears to the total gross revenue:—

GOVERNMENT RAILWAYS: PERCENTAGES OF RECEIPTS.

System.	1942-43.			1943-44.		
	Coaching.	Goods and Live Stock.	Miscellaneous.	Coaching.	Goods and Live Stock.	Miscellaneous.
	%	%	%	%	%	%
New South Wales ..	36.61	52.31	11.08	36.45	52.14	11.41
Victoria ..	44.91	47.80	7.29	45.17	47.13	7.70
Queensland..	25.93	70.62	3.45	29.58	65.99	4.43
South Australia ..	29.31	62.81	7.88	27.95	62.22	9.83
Western Australia ..	30.78	65.22	4.00	32.50	63.57	3.93
Tasmania ..	37.34	58.11	4.55	35.55	59.22	5.23
Commonwealth ..	25.62	72.40	1.98	27.19	70.37	2.44
Australia ..	34.72	57.64	7.64	35.54	56.12	8.34

4. *Working Expenses.*—(i) *General.* In order to make an adequate comparison of the working expenses, allowance should be made for the variation of gauges and of physical and traffic conditions, not only on the different systems of the State and Commonwealth railways, but also on different portions of the same systems. When traffic is light, the percentage of working expenses is naturally greater than when traffic is heavy; and this is especially true in Australia, where ton-mile rates are in many cases based on a tapering principle—i.e., a lower rate per ton-mile is charged upon merchandise from remote interior districts—and where on many of the lines there is but little back loading.

During the last two years large amounts, totalling about £9,756,000 in 1942-43 and £7,480,000 in 1943-44, have been set aside by the Railways as reserves, mainly to provide for depreciation and accrued leave, to be expended as circumstances permit. War conditions have subjected the Railways to heavy demands, and shortages in man-power and materials have rendered it impossible to deal with the resulting rapid deterioration of stock, tracks and works. Leave has accrued because shortages in staff have prevented the taking of annual leave. The Railway authorities have therefore taken the opportunity, which increased revenues offered, to provide for these future commitments. Particulars of the amounts thus set aside by each State during 1942-43 and 1943-44 are shown in the following table. These amounts are included in the maintenance of Way and Works and Rolling Stock sections following.

GOVERNMENT RAILWAYS: RESERVES MAINLY FOR DEPRECIATION AND ACCRUED LEAVE.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	C'wealth.	Australia.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1942-43 ..	5,214	2,485	1,706	81	80	90	100	9,756
1943-44 ..	3,509	1,272	2,279	112	96	112	100	7,480

The following table shows the total annual expenditure, the percentage thereof on gross revenue, and the expenditure per average mile worked and per train-mile run for the years 1940-41 to 1943-44 in comparison with 1938-39:—

GOVERNMENT RAILWAYS: WORKING EXPENSES.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	C'wealth.	Australia.
TOTAL WORKING EXPENSES.								
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1938-39 ..	14,543	8,060	6,193	2,931	2,911	678	642	35,958
1940-41 ..	17,162	8,959	6,708	3,062	2,758	757	903	40,309
1941-42 ..	21,712	11,600	8,488	3,856	3,026	854	1,507	51,043
1942-43 ..	27,343	14,040	11,400	4,661	3,448	964	2,171	64,027
1943-44 ..	27,535	13,214	13,163	5,213	3,796	1,136	2,521	66,578

GOVERNMENT RAILWAYS: WORKING EXPENSES—*continued.*

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	C'wealth.	Australia.
PERCENTAGE ON GROSS REVENUE.								
	%	%	%	%	%	%	%	%
1938-39 ..	72.91	86.82	79.42	93.97	80.96	139.18	117.43	80.30
1940-41 ..	71.46	79.71	79.72	87.18	77.21	126.19	93.00	77.04
1941-42 ..	76.22	79.89	72.83	78.00	75.72	124.51	68.64	76.78
1942-43 ..	78.41	82.44	63.24	80.21	78.03	114.45	57.95	75.55
1943-44 ..	78.00	83.20	80.12	87.18	86.54	130.46	72.87	80.89

PER AVERAGE MILE WORKED.								
	£	£	£	£	£	£	£	£
1938-39 ..	2,378	1,695	943	1,146	665	1,030	292	1,321
1940-41 ..	2,801	1,883	1,022	1,197	629	1,180	410	1,480
1941-42 ..	3,544	2,444	1,293	1,508	691	1,331	685	1,875
1942-43 ..	4,462	2,951	1,736	1,829	787	1,502	986	2,352
1943-44 ..	4,493	2,783	2,005	2,047	866	1,770	1,145	2,447

PER TRAIN-MILE RUN.								
	d.	d.	d.	d.	d.	d.	d.	d.
1938-39 ..	115.93	108.13	106.72	113.88	106.28	85.31	170.77	111.38
1940-41 ..	127.58	121.02	110.26	124.72	107.74	83.86	175.65	120.79
1941-42 ..	143.29	152.55	124.25	140.24	114.27	94.20	155.74	138.48
1942-43 ..	168.27	182.77	137.83	164.69	130.51	104.39	150.02	159.88
1943-44 ..	178.13	193.21	159.60	184.61	150.74	124.80	175.21	174.12

(ii) *Distribution.* The following table shows the distribution of working expenses under the chief four heads of expenditure for the years 1938-39 and 1940-41 to 1943-44:—

GOVERNMENT RAILWAYS: DISTRIBUTION OF WORKING EXPENSES.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	C'wealth.	Australia.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.

MAINTENANCE OF WAY AND WORKS.(a)

1938-39 ..	2,972	1,374	1,602	503	667	129	245	7,492
1940-41 ..	4,118	1,513	1,765	516	604	126	333	8,975
1941-42 ..	4,482	1,961	2,378	549	575	133	552	10,630
1942-43 ..	6,700	2,833	2,634	721	679	160	602	14,329
1943-44 ..	5,948	2,623	2,930	924	761	201	746	14,133

ROLLING STOCK.(a)

1938-39 ..	5,622	2,801	2,695	1,389	1,321	373	251	14,452
1940-41 ..	6,366	3,328	2,908	1,448	1,266	434	336	16,086
1941-42 ..	8,695	4,668	3,674	1,853	1,376	486	607	21,359
1942-43 ..	11,177	5,552	5,610	2,241	1,593	527	1,179	27,879
1943-44 ..	11,493	4,927	6,639	2,513	1,769	522	1,394	29,257

TRANSPORTATION AND TRAFFIC.

1938-39 ..	3,502	2,254	1,533	682	779	151	101	9,002
1940-41 ..	3,706	2,310	1,640	722	745	161	171	9,455
1941-42 ..	4,414	2,556	1,851	895	794	178	280	10,968
1942-43 ..	5,198	2,931	2,410	1,089	833	195	345	13,001
1943-44 ..	5,598	2,960	2,742	1,180	932	205	333	13,950

GOVERNMENT RAILWAYS: DISTRIBUTION OF WORKING EXPENSES

—continued.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	C'wealth.	Australia.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
OTHER CHARGES.								
1938-39 ..	2,448	1,630	363	357	144	24	45	5,011
1940-41 ..	2,972	1,807	396	376	143	36	63	5,793
1941-42 ..	4,122	2,414	584	559	282	57	68	8,086
1942-43 ..	4,268	2,724	746	610	343	82	45	8,818
1943-44 ..	4,496	2,704	852	596	334	208	48	9,238

(a) See par. 4 (i).

5. Net Revenue.—The following table shows the net earnings, i.e., the excess of gross earnings over working expenses, and the amount of such net earnings per average mile worked and per train-mile run for the years 1940-41 to 1943-44 in comparison with 1938-39 :

GOVERNMENT RAILWAYS: NET REVENUE.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	C'wealth.	Australia.
NET REVENUE.								
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1938-39 ..	5,403	1,224	1,605	188	688	— 191	— 95	8,822
1940-41 ..	6,854	2,280	1,707	450	814	— 157	68	12,016
1941-42 ..	6,774	2,920	3,166	1,088	970	— 168	689	15,439
1942-43 ..	7,529	2,990	6,627	1,149	970	— 122	1,576	20,719
1943-44 ..	7,766	2,668	3,267	766	591	— 265	938	15,731

NET REVENUE PER AVERAGE MILE WORKED.

	£	£	£	£	£	£	£	£
1938-39 ..	884	257	244	74	157	— 290	— 43	324
1940-41 ..	1,119	479	260	176	186	— 245	31	447
1941-42 ..	1,106	615	482	425	221	— 262	313	567
1942-43 ..	1,229	629	1,009	451	221	— 89	716	761
1943-44 ..	1,267	562	498	301	135	— 413	426	578

NET REVENUE PER TRAIN-MILE RUN.

	d.	d.	d.	d.	d.	d.	d.	d.
1938-39 ..	43.08	16.42	27.66	7.31	25.10	—24.01	—25.35	27.33
1940-41 ..	50.95	30.81	28.05	18.35	31.80	—17.40	13.21	36.01
1941-42 ..	44.70	38.41	46.34	39.57	36.65	—18.54	71.17	41.88
1942-43 ..	46.33	38.92	80.12	40.63	36.73	—13.18	108.86	51.74
1943-44 ..	50.24	39.02	39.61	27.14	23.45	—29.14	65.25	41.14

In the graphs accompanying this Chapter the gross and net revenue and working expenses are shown from 1870 to 1944.

6. Interest.—The interest payments on expenditure from loans for the construction and equipment of the Government railways in Australia during the years 1938-39 and 1940-41 to 1943-44 were as follows :—

GOVERNMENT RAILWAYS : INTEREST PAYMENTS ON RAILWAY LOAN EXPENDITURE.

Year.	N.S.W. (a)	Victoria. (b)	Q'land. (a) (b)	S. Aust. (b)	W. Aust.	Tasmania. (b)	C'wealth.	Australia (a)
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1938-39 ..	5,360	1,860	1,642	1,075	1,001	80	395	11,540
1940-41 ..	5,389	1,921	1,666	1,085	1,030	85	381	11,684
1941-42 ..	5,380	1,078	1,554	1,075	1,033	86	380	11,592
1942-43 ..	5,350	1,890	1,572	1,063	1,032	85	364	11,482
1943-44 ..	5,328	1,902	1,630	1,074	1,043	89	363	11,556

(a) Includes interest charges on the Grafton-South Brisbane Line, which for 1941-42 to 1943-44 amounted annually to £225,939 and was contributed by New South Wales, £72,179; Queensland, £27,029; and the Commonwealth, £126,731. See par. 5. p. 133. (b) Capital indebtedness reduced by legislation in these four States. See par. 1, p. 136.

The interest payable on the cost of construction and equipment as shown in the table in par. 1, p. 136, after the expenditure from Consolidated Revenue (£10,457,330 in 1942-43 and £10,500,639 in 1943-44) for that purpose had been deducted, was at the rate of 3.66 per cent. in 1942-43 and 3.67 per cent. in 1943-44.

Exchange on interest payments abroad and certain other charges are not included in the table above. These items are not charged against the railways in Queensland and Western Australia and have been excluded for the purposes of comparison. In the remaining States the amounts paid on account of exchange in 1942-43 were :—New South Wales, £750,000; Victoria, £197,674; South Australia, £125,872; and Tasmania, £9,943; and in 1943-44 :—New South Wales, £739,471; Victoria, £201,321; South Australia, £127,340; and Tasmania, £10,475.

7. Profit or Loss.—The following table shows, for the years 1938-39 and 1940-41 to 1943-44, the actual profit or loss after deducting working expenses, and interest, but excluding exchange, from the gross revenue :—

GOVERNMENT RAILWAYS : PROFIT OR LOSS.

PROFIT OR LOSS AFTER PAYMENT OF WORKING EXPENSES AND INTEREST.

Year.	N.S.W. (a)	Victoria.	Q'land. (a)	S. Aust.	W. Aust.	Tasmania.	C'wealth.	Australia (a)
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1938-39 ..	43	— 636	— 37	— 886	— 313	— 274	— 490	— 2,720
1940-41 ..	1,464	360	40	— 634	— 216	— 243	— 313	331
1941-42 ..	1,384	972	1,612	13	— 63	— 254	309	3,846
1942-43 ..	2,179	1,100	5,055	86	— 62	— 207	1,212	9,237
1943-44 ..	2,438	766	1,637	— 308	— 452	— 354	575	4,175

(a) See note (a), par. 6, above.

8. Traffic.—(i) *General.* Reference has already been made to the difference in the traffic conditions on many of the lines. These conditions differ not only in the several State and Commonwealth systems, but also on different lines in the same system, and apply to both passenger and goods traffic. By far the greater part of the population of Australia is confined to a fringe of country near the coast, more especially in the eastern

and southern districts. A large proportion of the railway traffic between the chief centres of population is therefore carried over lines in the neighbourhood of the coast, and is thus, in some cases, open to seaborne competition. In more recent years competition from air transport has become an important factor.

The following table gives particulars for the years 1940-41 to 1943-44 in comparison with 1938-39:—

GOVERNMENT RAILWAYS : TRAFFIC.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	C'wealth.	Australia.
NUMBER OF PASSENGER-JOURNEYS.								
	'000.	'000.	'000.	'000.	'000.	'000.	'000.	'000.
1938-39 ..	186,720	142,123	24,639	17,529	11,416	2,297	117	384,841
1940-41 ..	194,146	159,218	26,194	20,360	11,518	2,792	194	414,422
1941-42 ..	218,846	180,082	29,099	28,513	14,532	3,146	332	475,450
1942-43 ..	237,441	195,830	33,263	30,863	17,092	3,324	463	518,276
1943-44 ..	250,566	194,138	38,154	27,356	18,773	3,131	522	532,640

PER AVERAGE MILE OF LINE WORKED.

	No.	No.	No.	No.	No.	No.	No.	No.
1938-39 ..	30,541	29,896	3,752	6,854	2,608	3,490	53	14,134
1940-41 ..	31,687	33,457	3,989	7,961	2,629	4,349	88	15,217
1941-42 ..	35,720	38,137	4,431	11,149	3,317	4,900	151	17,466
1942-43 ..	38,747	41,158	5,065	12,108	3,901	5,177	210	19,037
1943-44 ..	40,889	40,888	5,811	10,741	4,285	4,877	237	19,573

TONNAGE OF GOODS AND LIVE STOCK CARRIED.

	'000.	'000.	'000.	'000.	'000.	'000.	'000.	'000.
1938-39 ..	15,417	5,976	5,234	2,640	2,859	844	186	33,156
1940-41 ..	18,032	6,623	5,600	2,742	2,604	955	211	36,767
1941-42 ..	18,588	7,503	5,761	3,100	2,638	1,024	326	38,940
1942-43 ..	19,646	8,759	6,706	3,430	2,595	982	473	42,501
1943-44 ..	19,493	8,294	6,567	3,648	2,560	978	516	41,966

PER AVERAGE MILE OF LINE WORKED.

	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1938-39 ..	2,522	1,257	797	1,032	653	1,282	84	1,218
1940-41 ..	2,943	1,392	853	1,072	594	1,488	96	1,350
1941-42 ..	3,034	1,581	877	1,212	602	1,594	148	1,431
1942-43 ..	3,206	1,841	959	1,346	572	1,475	215	1,546
1943-44 ..	3,166	1,747	923	1,432	584	1,523	234	1,525

(ii) *Metropolitan and Country Passenger Traffic and Revenue 1940-41.* A further indication of the difference in passenger traffic conditions is obtained from the comparison of the volume of metropolitan and suburban and country traffic during 1940-41 shown below. Figures for later years are not available for all States, because statistical compilations have been restricted owing to staff shortages and the extra work caused by war traffic.

**GOVERNMENT RAILWAYS : METROPOLITAN AND SUBURBAN, AND COUNTRY
PASSENGER TRAFFIC AND RECEIPTS, 1940-41.**

System.	Passenger-Journeys.			Revenue.		
	Metropolitan and Suburban.	Country.	Total.	Metropolitan and Suburban.	Country.	Total.
	No.	No.	No.	£	£	£
N.S.W. ..	180,441,178	13,704,560	194,145,738	3,403,264	4,232,764	7,636,028
Victoria ..	149,651,756	9,566,656	159,218,412	2,622,816	2,381,080	5,003,896
Queensland ..	21,054,711	5,138,847	26,193,558	365,118	1,424,360	1,789,478
S. Australia ..	18,641,965	1,718,046	20,360,011	268,893	552,162	821,055
W. Australia ..	9,967,342	1,550,874	11,518,216	129,469	511,491	640,960
Tasmania ..	(a) 1,789,638	1,002,452	2,792,090	(a) 23,921	141,921	165,842
Commonwealth ..	..	193,987	193,987	..	295,938	295,938
Australia	381,546,590	32,875,422	414,422,012	6,813,481	9,539,716	16,353,197

(a) Estimated.

(iii) *Goods Traffic.* (a) *Classification.* Some indication of the differing conditions of the traffic in each system is also given by an examination of the tonnage of the various classes of commodities carried, and of the revenue derived therefrom. The following table shows the number of tons of various commodities carried during 1943-44:

**GOVERNMENT RAILWAYS : CLASSIFICATION OF COMMODITIES CARRIED, 1943-44
'000 TONS CARRIED.**

System.	Coal, Coke and Shale.	Other Minerals.	Grain and Flour.	Wool.	Live Stock.	All other Com- modities.	Total.
New South Wales ..	(a)	(a)	(a)	(a)	800	18,603	19,403
Victoria ..	(a)	(a)	(a)	(a)	580	7,714	8,294
Queensland ..	999	334	..	93	577	4,564	6,567
South Australia ..	193	455	1,007	51	256	1,686	3,648
Western Australia ..	257	145	709	42	150	1,257	2,560
Tasmania ..	(b)	280	(a)	6	32	660	978
Commonwealth ..	6	14	(a)	5	46	445	516
Australia ..	(c)	(c)	(c)	(c)	2,441	34,929	41,966

(a) Included with "All other Commodities". (b) Included with "Other Minerals".
(c) Not available.

(b) *Revenue.* The following table shows the revenue derived from goods and live stock traffic during 1943-44 :—

GOVERNMENT RAILWAYS : REVENUE FROM GOODS AND LIVE STOCK, 1943-44.

Class.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth.	Australia.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
General merchandise	(a)	(a)	6,626	2,341	2,172	378	2,327	(a)
Wool ..			603	108	112	9	12	
Live Stock			894	276	192	30	83	
Minerals—								
Coal and coke ..			414	72	145	(b)	1	
Other ..			314	438	64	99	7	
Miscellaneous	(a)	(a)	(c) 1,991	(d) 485	104	..	4	(a)
Total ..			10,842	3,720	2,789	516	2,434	46,194

(a) Not available. (b) Included with "Other Minerals". (c) Includes Agricultural Produce, £1,350,000. (d) Includes wheat, £421,000.

(iv) *Passenger-Mileage.* The following table gives particulars of passenger-mileage in respect of the Government railways in Australia for the years 1938-39 to 1941-42. For the reason given in paragraph 8 (ii) figures subsequent to 1941-42 are not available.

GOVERNMENT RAILWAYS : SUMMARY OF "PASSENGER-MILES."

Year ended 30th June—	Passenger Train-Mileage.	Total Passenger-Miles.	Average Passengers per Train-Mile.	Average Mileage per Passenger-Journey.	Passenger Earnings.				Density of Traffic per Average Mile Worked.
					Gross.	Per Average Mile Worked.	Per Passenger-Mile.	Per Passenger Train-Mile.	
	'000.	'000.	No.	Miles.	£'000.	£	d.	d.	No.
NEW SOUTH WALES.									
1939	19,173	2,149,154	112	11.51	6,024	985	0.67	75.41	351,526
1940	18,388	2,199,564	120	12.28	6,347	1,038	0.69	82.84	359,523
1941	19,890	2,716,377	137	13.99	7,636	1,246	0.67	92.14	443,345
1942	(b)	(b)	(b)	(b)	(c)9,560	1,560	(b)	(b)	(b)
VICTORIA.									
1939	12,434	1,292,843	104	9.10	3,855	811	0.72	74.40	271,948
1940	11,843	1,367,596	115	9.45	4,032	847	0.71	81.71	287,375
1941	12,558	1,685,814	134	10.59	5,004	1,051	0.71	95.63	354,245
1942	12,547	(b)	(b)	(b)	6,299	1,327	(b)	120.48	(b)
QUEENSLAND.(a)									
1939	5,750	(b)	(b)	(b)	1,523	232	(b)	63.55	(b)
1940	5,916	(b)	(b)	(b)	1,574	240	(b)	63.84	(b)
1941	5,939	(b)	(b)	(b)	1,711	263	(b)	69.15	(b)
1942	6,323	(b)	(b)	(b)	2,416	372	(b)	91.72	(b)
SOUTH AUSTRALIA.									
1939	3,747	212,982	57	12.15	600	235	0.68	38.45	83,281
1940	3,615	220,037	61	12.47	630	246	0.69	41.81	86,040
1941	3,519	277,570	79	13.63	821	321	0.71	56.00	108,532
1942	3,854	434,465	113	15.24	1,309	512	0.72	81.53	169,879
WESTERN AUSTRALIA.									
1939	2,795	(b)	(b)	(b)	514	117	(b)	44.12	(b)
1940	2,678	(b)	(b)	(b)	540	123	(b)	48.42	(b)
1941	2,762	(b)	(b)	(b)	641	146	(b)	55.70	(b)
1942	2,932	(b)	(b)	(b)	924	211	(b)	75.61	(b)
TASMANIA.									
1939	1,027	35,193	34	15.32	129	196	0.88	30.15	53,485
1940	1,161	37,269	32	15.45	133	207	0.86	26.72	57,871
1941	1,193	(b)	(b)	(b)	166	258	(b)	33.36	(b)
1942	1,121	(b)	(b)	(b)	200	311	(b)	42.78	(b)
COMMONWEALTH.(d)									
1939	388	34,085	88	290.98	146	66	1.03	90.21	15,486
1940	423	41,245	98	318.04	180	82	1.05	102.37	18,739
1941	494	67,985	138	350.46	296	134	1.04	143.92	30,887
1942	459	126,190	275	379.74	584	265	1.11	305.46	57,332

(a) Excludes Queensland portion of Grafton-South Brisbane (Uniform Gauge) Line. (b) Not available. (c) Estimated. (d) Railways controlled by Commonwealth Government.

(v) *Ton-Mileage.* Particulars regarding total "ton-miles" are given in the following table for each of the years 1938-39 to 1941-42. Figures subsequent to 1941-42 are not available.

GOVERNMENT RAILWAYS : SUMMARY OF "TON-MILES."

Year ended 30th June—	Goods-Train-Mileage.	Total "Ton-miles."	Average Freight Paying Load per Train-Mile.	Average Haul per Ton.	Goods and Live Stock Earnings.				Density of Traffic per Average Mile worked.
					Gross.	Per Average Mile Worked.	Per "Ton-Mile."	Per Goods-Train-Mile.	
	'000.	'000.	Tons.	Miles.	£'000.	£	d.	d.	Tons.
NEW SOUTH WALES.									
1939	10,933	1,760,534	161	115.95	10,356	1,694	1.41	227.34	287,961
1940	11,082	1,827,662	165	126.11	10,851	1,774	1.42	225.98	298,735
1941	12,395	2,115,786	171	118.63	12,415	2,026	1.39	240.39	345,885
1942	(g)	(g)	(g)	(g)	14,387	2,348	(g)	(g)	(g)
VICTORIA.									
1939	5,455	760,485	139	127.26	4,276	899	1.35	188.11	159,967
1940	5,165	818,637	159	132.32	4,637	974	1.36	218.48	172,021
1941	5,209	811,890	156	122.59	4,860	1,021	1.44	223.92	170,601
1942	5,702	(g)	(g)	(g)	6,573	1,385	(g)	276.68	(g)
QUEENSLAND.(a)									
		(b)	(c)	(b)			(b)		(b)
1939	8,073	745,351	92	147.57	5,404	823	1.73	160.67	118,248
1940	8,175	766,635	94	144.72	5,646	860	1.76	165.76	121,625
1941	8,527	811,464	95	150.76	5,695	876	1.67	160.29	128,737
1942	9,920	(g)	(g)	(g)	8,003	1,232	(g)	193.64	(g)
SOUTH AUSTRALIA.									
1939	2,430	348,553	143	132.01	2,144	838	1.48	211.72	136,293
1940	2,313	336,885	146	125.93	2,167	847	1.54	220.48	131,730
1941	2,373	330,836	139	120.65	2,261	884	1.64	228.62	129,359
1942	2,745	385,754	141	124.43	3,057	1,195	1.90	267.32	150,832
WESTERN AUSTRALIA.									
1939	(d) 3,779	378,089	100	132.24	2,807	641	1.78	178.26	86,393
1940	(d) 3,456	361,690	105	136.03	2,745	626	1.82	190.61	82,570
1941	(d) 3,382	351,245	104	134.89	2,651	605	1.75	188.16	80,169
1942	(d) 3,424	341,729	100	129.51	2,736	625	1.86	191.81	77,994
TASMANIA.(e)									
1939	(d) 880	38,088	43	46.80	296	450	1.87	80.76	57,885
1940	(d) 904	42,265	47	49.83	336	522	1.91	89.20	65,630
1941	(d) 974	48,784	50	52.68	367	572	1.81	90.41	75,988
1942	(d) 1,055	54,030	51	54.51	409	637	1.82	92.97	84,159
COMMONWEALTH.(f)									
1939	514	34,801	68	187.28	224	102	1.54	104.38	15,811
1940	535	37,904	71	190.39	248	112	1.57	111.18	17,221
1941	740	48,982	66	232.06	421	191	2.06	136.50	22,254
1942	1,863	117,604	63	360.49	1,342	610	2.74	172.86	53,431

(a) Excludes Queensland portion of Grafton-South Brisbane (Uniform Gauge) Line. (b) Excludes Cooktown and Normanton Railways and Innisfail and Mourilyan Tramways. (c) Approximate. (d) Estimated. (e) Excludes particulars of live stock carried. (f) Railways controlled by the Commonwealth Government. (g) Not available.

9. **Rolling Stock.**—The following table shows the number of rolling stock in use at 30th June for each of the years 1939, 1943 and 1944. Further details may be found in *Transport and Communication Bulletins*.

GOVERNMENT RAILWAYS : ROLLING STOCK.

System	1938-39.			1942-43.			1943-44.		
	Locos.	Coaching Stock.	Other Stock.	Locos.	Coaching Stock.	Other Stock.	Locos.	Coaching Stock.	Other Stock.
New South Wales ..	1,284	2,808	24,257	1,151	2,839	25,280	1,147	2,822	25,666
Victoria ..	581	2,439	20,993	607	2,430	20,725	609	2,425	20,667
Queensland ..	752	1,413	18,733	725	1,442	19,590	769	1,448	20,574
South Australia ..	335	594	7,966	330	638	8,081	325	645	7,932
Western Australia ..	427	475	11,110	390	448	10,965	391	425	10,953
Tasmania ..	95	225	2,120	95	229	2,238	98	215	2,307
Commonwealth ..	113	80	1,359	158	117	1,583	166	124	1,934
Australia ..	3,587	8,043	86,538	3,456	8,143	88,462	3,505	8,104	90,033

10. **Accidents.**—The following table gives particulars of the number of persons killed and injured through train accidents and the movement of rolling stock on the Government railways of Australia for each of the years 1941-42 to 1943-44.

GOVERNMENT RAILWAYS : ACCIDENTS.

System.	1941-42.		1942-43.		1943-44.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
New South Wales (a) ..	110	709	117	896	141	813
Victoria ..	46	409	75	413	35	242
Queensland ..	22	201	49	322	32	326
South Australia ..	17	264	19	270	20	311
Western Australia ..	25	177	25	226	13	197
Tasmania ..	2	8	4	11	3	7
Commonwealth ..	6	91	5	83	5	159
Australia ..	228	1,859	294	2,221	249	2,055

(a) Excludes accidents to Railway employees.

11. **Consumption of Oil and Fuel.**—The following table shows the quantities and values of oil and fuel consumed by the various Government Railway Departments during 1943-44 :—

GOVERNMENT RAILWAYS : CONSUMPTION AND VALUE OF OIL AND FUEL, 1943-44.

System.	Oil.				Coal.			
	Lubrication.		Fuel, Light, etc.		Locomotives.		Other Purposes.	
	Gallons. '000.	£'000.	Gallons. '000.	£'000.	Tons. '000.	£'000.	Tons. '000.	£'000.
N.S.W. ..	(a)	(a)	(a)	(a)	1,462	1,465	676	817
Victoria ..	206	37	1,318	68	390	818	148	269
Q'land ..	389	90	536	46	715	807	18	23
S. Aust. ..	90	19	1,165	86	298	654	6	13
W. Aust. ..	117	25	499	33	329	424	6	8
Tas. ..	55	11	390	25	66	94	2	3
C'wealth ..	82	16	322	25	123	405	..	..
Australia	(b) 939	(b) 198	(b) 4,230	(b) 283	3,383	4,667	856	1,133

(a) Not available.

(b) Exclusive of New South Wales.

12. **Staff Employed.**—The following table gives details of the average staff employed by the Government railways of Australia during 1943-44 :—

GOVERNMENT RAILWAYS : AVERAGE STAFF EMPLOYED(a), 1943-44.

System.	Operating Staff.		Construction Staff.		All Employees—Staff.	
	Salaried.	Wages.	Salaried.	Wages.	Salaried.	Wages.
	No.	No.	No.	No.	No.	No.
New South Wales ..	7,725	40,294	1	1,010	7,726	41,304
Victoria ..	3,103	22,628	(b)	(b)	3,103	22,628
Queensland ..	3,407	18,015	6	55	3,413	18,070
South Australia ..	1,837	9,964	(c)	(c)	1,837	9,964
Western Australia ..	1,284	7,215	..	..	1,284	7,215
Tasmania ..	206	2,355	(d)	(d)	206	2,355
Commonwealth ..	301	3,037	..	168	301	3,205
Australia ..	17,863	103,508	7	1,233	17,870	104,741

(a) Excludes members of staff serving with Defence Services. (b) In Victoria, railway construction work is not under the control of the Railways Commissioners. (c) Staff engaged on special work. (d) Construction work has been placed under the direction of the Chief Engineer of Ways and Works.

§ 3. Private Railways.

1. **Total Mileage Open, 1943-44.**—The bulk of the private railways in Australia has been laid down for the purpose of hauling timber, firewood, sugar-cane, coal and other minerals, and it is not generally used for the conveyance of passengers or for public goods traffic. In many cases the lines are practically unballasted and easily removable.

The railways referred to in this section include only lines open to the public for general passenger and goods traffic. Complete particulars of lines used for special purposes only are not available.

2. **Lines Open for General Traffic.**—The following statement gives a summary of the operations of private railways open for general traffic for 1943-44 :—

PRIVATE RAILWAYS : SUMMARY OF OPERATIONS, 1943-44.

State.	Route-Miles Open.	Capital Cost.	Gross Revenue.	Working Expenses.	Train-Miles Run.	Passenger-Journeys.	Goods, etc., Carried.	Em- ployees.
	Miles.	£'000.	£	£	'000.	'000.	'000. Tons.	No.
N.S.W.(a)	66	1,246	417,085	264,167	462	1,692	748	404
Vic. ..	13	42	9,254	8,200	6	9	21	15
Q'land(a)	182	145	9,548	19,329	78	6	137	44
S.A.(a) ..	51	510	1,151	214,976	103	55	2,222	159
W.A. ..	277	2,337	332,901	156,375	360	184	139	352
Tas.(a) ..	116	930	151,952	143,709	193	36	205	311
Australia(a)	705	5,210	921,891	806,756	1,202	1,982	3,472	1,285

(a) Incomplete.

Some of the particulars given in the table are incomplete in respect of New South Wales, Queensland, South Australia and Tasmania. In New South Wales and Queensland several lines, although owned by private companies, are operated by the Government Railway Departments, and Government rolling stock is used thereon, while some of the companies are not able to supply particulars of the capital cost, revenue and working

expenses of the lines which they operate. In some cases the figures relating to tonnage of goods, etc., include particulars of coal, ores, timber, sugar-cane, etc., carried for private purposes, as details relating to goods carried for the general public are not recorded separately.

C. TRAMWAYS.

1. **Systems in Operation.**—(i) *General.* Tramway systems are in operation in all the Capital cities and in a number of the larger towns of Australia. The systems are operated mainly by governmental and municipal authorities, and are now all electric.

In many parts of Australia private lines used for special purposes in connexion with the timber, mining, sugar, or other industries are often called tramways, but they are more properly railways (see above), and the traffic on them has nothing in common with that of the street tramways for the conveyance of passengers, which are dealt with in the present section.

(ii) *Total Mileage Open and Classification of Lines.* The following tables show for each State the total mileage of tramway lines open for general passenger traffic for 1943-44 classified (a) according to the controlling authority; (b) according to gauge:—

TRAMWAYS: ROUTE MILEAGE OPEN, 1943-44.

Particulars—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
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ACCORDING TO CONTROLLING AUTHORITY.

	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Government ..	172	171	..	..	49	..	392
Municipal ..	..	..	63	59	11	31	164
Private ..	..	..	..	..	9	..	9
Total ..	172	171	63	59	69	31	565

ACCORDING TO GAUGE.

Gauge—							
5 ft. 3 in. ..	..	5	..	..	..	..	5
4 ft. 8½ in. ..	172	166	63	59	..	..	460
3 ft. 6 in. ..	..	..	..	..	69	31	100
Total ..	172	171	63	59	69	31	565

(iii) *Cost of Construction and Equipment.* The table hereunder shows the total cost of construction and equipment of all tramways to 30th June, 1944, classified according to the nature of the motive-power.

TRAMWAYS: COST OF CONSTRUCTION AND EQUIPMENT, 1943-44.

Nature of Motive-power.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
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ACCORDING TO MOTIVE-POWER. (a)

	£	£	£	£	£	£	£
Electric..	8,711,495	8,760,323	2,350,157	4,476,345	1,877,875	711,309	26,887,504

(a) All non-electric tramways have ceased operations.

(iv) *Summary of Operations, 1939-40 to 1943-44.* The following table gives a summary of the working of all electric tramway systems in Australia for the years 1939-40 to 1943-44 :—

ELECTRIC TRAMWAYS : SUMMARY OF OPERATIONS.

Particulars.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.
Mileage open for traffic .. miles	546	548	550	555	565
Cost of construction and equipment .. £'000	26,205	26,063	26,289	26,533	26,888
Cost per mile £	47,995	47,561	47,798	47,807	47,589
Gross revenue £'000	7,631	8,085	9,370	10,507	11,238
Working expenses "	6,019	6,073	6,916	7,746	8,372
Net earnings "	1,612	2,012	2,454	2,761	2,866
Interest "	907	895	856	837	827
Percentage of working expenses on gross revenue %	78.87	75.12	73.80	73.73	74.50
Percentage of net earnings on capital cost %	6.15	7.72	9.33	10.41	10.66
Tram-miles run '000 miles	77,421	77,427	81,778	85,441	87,157
Gross revenue per tram-mile .. d.	23.65	25.06	27.49	29.51	30.94
Working expenses per tram-mile .. "	18.66	18.82	20.29	21.76	23.05
Net earnings per tram-mile "	5.00	6.24	7.20	7.75	7.89
Passenger-journeys '000	692,006	737,255	873,657	990,482	1,083,212
" per tram-mile No.	8.94	9.46	10.68	11.89	12.43
Average revenue per passenger-journey d.	2.65	2.63	2.57	2.55	2.49
Persons employed at end of year No.	16,983	17,783	18,107	18,906	18,725

2. *Electric Tramways.*—(i) *Financial Operations.* The following table gives the capital cost and the financial result of electric tramways for each State during 1943-44 together with similar details for Australia for the last five years.

ELECTRIC TRAMWAYS : CAPITAL COST AND FINANCIAL RESULTS.

State.	Route-Miles Open at 30th June, 1944.	Capital Cost.	Gross Revenue.	Working Expenses.	Net Revenue.	Interest.	Employees at 30th June, 1944.
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STATES, 1943-44.

	Miles.	£'000.	£'000.	£'000.	£'000.	£'000.	No.
New South Wales ..	172	8,712	4,302	3,913	389	258	9,285
Victoria ..	171	8,760	3,403	2,001	1,402	202	4,470
Queensland ..	63	2,350	1,455	896	559	132	1,929
South Australia ..	59	4,477	1,190	877	313	158	(a) 1,959
Western Australia ..	69	1,878	616	515	101	48	998
Tasmania ..	31	711	272	170	102	29	84
Australia ..	565	26,888	11,238	8,372	2,866	827	18,725

(a) Includes Motor Omnibus employees.

ELECTRIC TRAMWAYS: CAPITAL COST AND FINANCIAL RESULTS—*continued.*

Year.	Route-Miles Open at 30th June.	Capital Cost.	Gross Revenue.	Working Expenses.	Net Revenue.	Interest.	Employees at 30th June.
AUSTRALIA, 1939-40 TO 1943-44.							
	Miles.	£'000.	£'000.	£'000.	£'000.	£'000.	No.
1939-40 ..	546	26,205	7,631	6,019	1,612	907	16,983
1940-41 ..	548	26,063	8,085	6,073	2,012	895	17,783
1941-42 ..	550	26,289	9,370	6,916	2,454	856	18,167
1942-43 ..	555	26,533	10,507	7,746	2,761	837	18,906
1943-44 ..	565	26,888	11,238	8,372	2,866	827	18,725

(ii) *Traffic and Accidents.* Particulars of the traffic of electric tramways and the accidents which occurred in the movement of rolling stock are shown in the following table for each State during 1943-44, and for Australia during the last five years:—

ELECTRIC TRAMWAYS: TRAFFIC AND ACCIDENTS.

State.	Average Mileage Open for Year.		Car- Miles Run.	Passenger- Journeys.	Average Number Passengers per Car- Mile.	Accidents.	
	Route.	Track.				Persons.	
						Killed.	Injured.
STATES, 1943-44.							
	Miles.	Miles.	'000.	'000.	No.	No.	No.
New South Wales	172	323	a 34,000	436,048	12.82	60	3,168
Victoria ..	171	318	25,451	304,404	11.96	28	845
Queensland ..	63	112	10,017	157,432	15.72	17	752
South Australia ..	59	128	9,065	88,889	9.81	13	165
Western Australia	69	108	6,087	65,269	10.72	(b) 1	(b) 69
Tasmania ..	31	44	2,537	31,170	12.28	2	32
Australia ..	565	1,033	87,157	1,083,212	12.43	121	5,031

AUSTRALIA, 1939-40 TO 1943-44.

1939-40..	546	1,002	77,421	692,006	8.94	78	2,925
1940-41..	548	1,001	77,427	737,255	9.46	80	2,921
1941-42..	550	1,008	81,778	873,657	10.68	114	3,605
1942-43..	555	1,015	85,441	990,482	11.89	(b) 135	(b) 6,194
1943-44..	565	1,033	87,157	1,083,212	12.43	(b) 121	(b) 5,031

(a) Estimated.

(b) Excludes particulars for Perth.

D. MOTOR OMNIBUS PASSENGER SERVICES.

1. *General.*—Motor omnibus passenger services have been in operation for some years in the capital cities and some of the larger towns of the States of Australia, and in the Australian Capital Territory.

Governmental and Municipal authorities operate certain services and the others are run by private operators; in the States the former are run in conjunction with the existing electric tramway systems.

2. Government and Municipal Controlled Services.—(i) *Summary of operations, 1943-44.* In the following table a summary is given of the operations of Governmental and Municipal controlled omnibus systems during the year ended 30th June, 1944.

GOVERNMENT AND MUNICIPAL CONTROLLED MOTOR OMNIBUS PASSENGER SERVICES, 1943-44.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	A.C.T.	Aus- tralia.
Length of route miles.	414	67	30	21	(a) 203	15	10	760
Number of buses No.	480	312	24	65	30	13	25	949
Capital cost £'000.	1,144	716	70	153	64	19	25	2,196
Bus mileage run '000 miles	17,252	8,524	977	1,179	863	118	642	29,555
Passenger journeys '000	b 115,775	71,632	7,412	6,146	4,282	911	3,196	209,354
Gross traffic receipts £'000	1,399	773	95	91	54	8	36	2,458
Working expenses £'000	(c) 1,428	669	(d) 51	106	44	9	46	2,353
Number of employees No.	3,289	1,349	90	(e)	33	(f) 15	88	(g) 4,864

(a) Includes railway bus service, Perth-Kojonup. (b) Excludes 5,394,000 passengers across Sydney Harbour Bridge whose journeys did not extend beyond the Bridge section. (c) Excludes administrative and general charges which are included in the electric tramway working expenses shown in Section C. (d) Excludes depreciation and interest and redemption paid. (e) Not available, employees interchangeable with Electric Tramways and included therein (Section C.) (f) Excludes employees Hobart Municipal buses, who are interchangeable with Electric Tramways and included therein (See Section C.). (g) See notes (e) and (f).

(ii) *Summary of Operations 1939-40 to 1943-44.*—The following table gives a summary of the working of motor omnibus passenger services in Australia under Government and Municipal control during the five years ended 1943-44.

GOVERNMENT AND MUNICIPAL CONTROLLED MOTOR OMNIBUS PASSENGER SERVICES: SUMMARY OF OPERATIONS.

Particulars.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.
Mileage open for traffic miles	(a)	(a)	(a)	(a)	760
Number of buses No.	666	801	872	901	949
Cost of plant and equipment £'000	1,825	1,987	2,127	2,187	2,190
Gross revenue £'000	1,358	1,913	2,485	2,493	2,458
Working expenses £'000	1,247	1,659	2,037	2,289	2,353
Net revenue £'000	111	254	448	204	105
Percentage of working expenses on gross revenue %	91.89	86.70	82.00	91.80	95.73
Percentage of net revenue on capital cost %	6.08	12.78	21.06	9.34	4.78
Bus miles run '000 miles	18,795	23,747	28,359	29,349	29,555
Gross revenue per bus mile run d.	17.34	19.33	21.02	20.39	19.96
Working expenses per bus mile run d.	15.93	16.76	17.24	18.72	19.11
Net revenue per bus mile run d.	1.41	2.57	3.78	1.67	0.85
Passenger journeys '000	94,786	145,526	192,590	203,791	209,354
Passenger journeys per bus mile No.	5.04	6.13	6.79	6.94	7.08
Average gross revenue per passenger journey d.	3.44	3.16	3.10	2.94	2.81
Persons employed No.	2,725	3,975	4,573	4,626	4,864

(a) Not available.

The factors primarily responsible for the drop in net revenue during the years 1942-43 and 1943-44 were decreased revenue in New South Wales following curtailment of services due to war conditions, and increased working expenses in that State following salary and wage increases.

3. **Privately Controlled Services.**—(i) *General.* Particulars of motor omnibus passenger services under the control of private operators are recorded in the States of New South Wales, South Australia and Western Australia only.

In New South Wales particulars are compiled for the Metropolitan and Newcastle Transport districts only, but in South Australia and in Western Australia all operators throughout the State are covered.

(ii) *Summary of operations.* The operations of motor omnibus passenger services under the control of private operators in these States during the five years ended June, 1944, are shown in the following table.

MOTOR OMNIBUS SERVICES UNDER PRIVATE CONTROL.

NEW SOUTH WALES(a), SOUTH AUSTRALIA AND WESTERN AUSTRALIA.

Particulars.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.
Number of buses—					
New South Wales .. No.	384	406	422	443	490
South Australia (b) .. No.	39	39	46	57	57
Western Australia .. No.	248	263	268	262	270
Bus miles run—					
New South Wales .. miles '000	8,573	9,155	10,054	9,949	10,093
South Australia .. miles '000	3,226	3,808	3,925	3,555	3,465
Western Australia .. miles '000	8,660	9,161	9,337	8,840	8,080
Number of passenger journeys—					
New South Wales .. No. '000	30,816	34,719	43,905	51,935	54,118
South Australia .. No. '000	2,527	3,691	5,699	6,876	7,187
Western Australia .. No. '000	14,762	17,786	21,938	24,201	24,415
Value of plant and equipment—					
New South Wales .. £'000	199	217	248	285	350
South Australia .. £'000	(c)	(c)	(c)	(c)	(c)
Western Australia .. £'000	(c)	(c)	(c)	(c)	(c)
Gross revenue—					
New South Wales .. £'000	418	483	585	741	761
South Australia .. £'000	115	161	238	268	278
Western Australia .. £'000	322	413	516	582	594
Number of persons employed—					
New South Wales .. No.	612	698	730	755	835
South Australia .. No.	(c)	(c)	(c)	(c)	(c)
Western Australia .. No.	460	543	548	554	586

(a) Metropolitan and Newcastle Transport Districts only.
metropolitan area only.

(c) Not available.

(b) Number of buses operating in

E. FERRY (PASSENGER) SERVICES.

1. *General.*—In the State of New South Wales ferry services have been established by private companies to transport passengers in the ports of Sydney and Newcastle. In Western Australia services are operated on the Swan River at Perth under both Government and private control. Inextensive services operate in the States of Victoria, Queensland and Tasmania, but no ferry services are in operation in the State of South Australia.

2. *Summary, New South Wales and Western Australia.*—The following statement gives a summary of operations of ferry passenger services in New South Wales and Western Australia during the past ten years. Particulars of passengers carried on vehicular ferries are not included.

FERRY (PASSENGER) SERVICES (Exclusive of Vehicular Ferries).

Year.	Number of Vessels.	Passenger Accommodation.	Passengers Carried.	Gross Revenue.	Number of Persons Employed.
		No.	No. '000.	£	
NEW SOUTH WALES.—SYDNEY AND NEWCASTLE.					
1934-35	37	31,332	23,898	353,060	643
1935-36	45	34,728	24,560	371,374	754
1936-37	45	34,343	25,566	389,420	848
1937-38	46	35,976	27,349	420,509	843
1938-39	54	38,971	27,864	418,500	830
1939-40	54	36,967	28,260	441,800	857
1940-41	55	36,287	30,191	476,799	780
1941-42	55	34,899	31,800	501,582	741
1942-43	51	29,487	33,387	506,255	670
1943-44	45	28,809	34,588	540,513	730

WESTERN AUSTRALIA.—PERTH.

1934-35(a)	10	1,338	1,155	12,775	28
1935-36	6	880	1,149	11,389	24
1936-37	6	880	1,216	11,459	24
1937-38	6	880	1,191	11,231	24
1938-39	6	880	1,184	11,001	25
1939-40	6	880	1,135	10,436	23
1940-41	6	880	1,200	11,286	25
1941-42	6	880	1,393	13,117	24
1942-43	7	1,030	1,452	14,506	26
1943-44	7	1,022	1,522	14,655	25

(a) Includes particulars for pleasure cruises.

F. MOTOR VEHICLES.

1. Motor Industry. Although motor cars are not entirely manufactured in Australia the capital invested in assembling and body-building plants is considerable. The importance of the industry is shown by the following figures which relate to the local manufacture of motor bodies and the importation of motor cars, fuel and tyres during 1938-39 and the four years ended 1943-44.

MOTOR VEHICLES, ETC. : LOCAL MANUFACTURE AND IMPORTS.

Particulars.	Unit.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Motor bodies built	No.	79,017	49,651	62,731	44,286	29,304
	£A.	6,379,955	3,337,346	4,321,988	4,652,771	2,582,737
Imports—						
Motor bodies	No.	532	50	16	270	694
	£Stg.	56,641	4,057	1,805	57,010	52,834
Chassis	No.	76,094	31,168	35,096	14,547	9,186
	£Stg.	6,416,949	2,799,768	4,849,548	3,558,330	2,544,419
Chassis and motor parts	£Stg.	781,643	717,588	1,155,921	5,494,914	9,557,146
Crude petroleum	Mill. gal.	54	77	49	..	1
	£Stg.	448,880	833,583	709,953	4,410	4,257
Petroleum spirit	Mill. gal.	345	237 (a)	265	347	372
	£Stg.	5,209,650	3,829,011	8,496,494	8,484,825	9,935,861
Pneumatic tyres and tubes	lb.	322,764	54,186	1,293,404	559,806	126,269
	£Stg.	28,094	7,095	156,145	194,598	31,710

(a) Incomplete.

(b) Not available.

2. **Registration.**—The arrangements for the registration of motor vehicles and the licensing of drivers and riders thereof are not uniform throughout Australia. Methods of registration, licence fees payable, etc., in each State are referred to in Official Year Book No. 16, pp. 337-40, and later issues up to No. 25.

3. **Public Vehicles.**—In all the capital cities of the States and in many of the most important provincial centres taxi-cabs and other vehicles ply for hire under licence granted either by the Commissioner of Police or the Local Government authority concerned. As most of these vehicles are independently controlled by individuals or small companies, it has not been possible to obtain complete data in respect of their operations.

4. **Motor Omnibuses.**—In both urban and provincial centres motor omnibus traffic has assumed considerable proportions during recent years, and has had a marked effect on railway and tramway services. The constitution of Boards empowered to allocate the routes over which omnibuses may operate arose from the belief that the economic waste, resulting from duplication by running services parallel with or contiguous to existing railway and tramway systems, is thus avoided. In some States the railway and tramway systems run motor services complementary to their main services to meet the competition of private enterprise and to endeavour to protect the existing transport utilities provided by public bodies. In addition, there has been a considerable replacement, during the last few years, of existing tramway services by trolley-bus and motor-bus services. (See Section D.)

5. **Motor Vehicles on the Register, etc.**—(i) *Year 1943-44.* Particulars of the registration of motor vehicles, licences issued and revenue received for 1943-44 are contained in the following table. A graph showing motor vehicle registrations since the year 1920 may be found on p. 138.

MOTOR VEHICLES : REGISTRATIONS AND REVENUE, 1943-44.

(Excluding Defence Service Vehicles.)

State or Territory.	Motor Vehicles Registered at 30th June, 1944.(a)					Drivers' and Riders' Licences in force at 30th June, 1944.	Gross Revenue derived from—			
	Motor Cars.(b)	Com- mercial Vehicles (c)	Motor Cycles.	Total.	Per 1,000 of Population at 30th June, 1944.		Vehicle Registra- tions and Motor Tax.	Drivers' and Riders', etc., Licences.	Other Sources.	Total.
	No.	No.	No.	No.	No.	No.	£	£	£	£
N.S. Wales ..	182,287	79,000	14,897	276,184	96.20	423,452	2,070,935	214,192	60,303	2,345,430
Victoria ..	136,842	89,354	17,965	244,161	122.21	337,171	1,440,104	84,299	80,308	1,604,711
Queensland ..	68,247	50,788	6,103	125,138	117.45	264,346	692,880	59,837	65,565	818,282
South Australia ..	57,366	24,008	6,553	87,927	141.36	105,951	510,297	54,115	12,741	577,153
Western Aust.	30,370	22,791	4,327	57,488	118.43	70,420	325,779	23,081	34,157	383,017
Tasmania ..	16,730	6,321	2,583	25,634	104.44	27,348	181,018	13,674	20,557	215,249
Northern Terr.	174	1,570	35	1,779	1.177	1,177	1,878	537	..	2,415
Aust. Cap. Terr.	1,375	437	97	1,909	132.16	2,577	9,881	1,421	60	11,371
Australia ..	493,391	274,269	52,560	820,220	112.26	1,232,442	5,232,772	451,156	273,700	5,957,628

- (a) Excludes Trailers (28,550), Road Tractors, etc. (2,915), and Dealers' Plates (1,515).
 (b) Includes Taxis and Hire Cars. (c) Includes Lorries, Vans, Buses and Utility Trucks.
 (d) Includes 52,645 vehicles registered as primary producers'.

Particulars relating to the number of motor vehicles registered at 30th June, 1945 and 1946, will be found in the Appendix to this volume.

(ii) *Years 1938-39 to 1943-44.* The following table shows the number of vehicles registered, licences issued, and revenue received therefrom during each of the years 1940-41 to 1943-44 in comparison with 1938-39 :—

MOTOR VEHICLES : REGISTRATIONS AND REVENUE, AUSTRALIA.

(Excludes Defence Service Vehicles.)

Year.	Motor Vehicles Registered at 30th June.					Drivers' and Riders' Licences in force at 30th June.	Gross Revenue derived from—			
	Motor Cars.	Commercial Vehicles, (a)	Motor Cycles.	Total.	Per 1,000 of Population at 30th June.		Vehicle Registrations and Motor Tax.	Drivers' and Riders', etc., Licences.	Other Sources.	Total.
	No.	No.	No.	No.	No.	No.	£	£	£	£
1938-39	562,271	258,025	79,237	899,533	129.23	1,238,497	6,318,435	508,387	244,722	7,071,544
1940-41	538,483	262,141	70,918	871,542	122.71	1,260,193	6,562,350	496,670	302,128	7,361,148
1941-42	450,851	250,515	49,467	750,833	104.66	1,186,672	5,528,625	444,573	262,483	6,235,681
1942-43	471,742	255,933	48,321	775,996	107.33	1,185,398	4,982,634	439,509	267,416	5,689,559
1943-44	493,391	274,269	52,560	820,220	112.26	1,232,442	5,232,772	451,156	273,700	5,957,628

(a) Includes primary producers' vehicles, Victoria.

(iii) *Relation to Population.* The table hereunder gives the number of vehicles (excluding motor cycles) registered per 1,000 of population in each State at 31st December, 1921, and at 30th June for each of the years 1939 and 1941 to 1944 :—

MOTOR VEHICLES (EXCLUDING MOTOR CYCLES) REGISTERED PER 1,000 OF POPULATION.

(Excludes Defence Service Vehicles.)

Year.		N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
31st Dec., 1921	..	15	16	8	24	12	13	(a)	..	15
30th June, 1939	..	107	125	118	137	134	96	221	182	118
„ 1941	..	100	120	116	131	132	96	195	163	113
„ 1942	..	86	106	100	118	108	82	176	149	98
„ 1943	..	87	110	106	125	107	89	243	118	101
„ 1944	..	92	114	113	131	110	94	348	129	106

(a) Not available.

(iv) *Revenue per Motor Vehicle.* The following table gives the average revenue per vehicle (excluding motor cycles) received in respect of registration and motor tax in the several States for the year 1938-39 and for each year from 1940-41 to 1943-44. In some States the revenue from motor tax on cycles is not separately recorded. In these cases an amount based on the flat rate provided for cycles in the registration acts has been deducted from the total revenue received, and the average amounts shown must therefore be regarded as approximate only. Registration fees and motor taxes were reduced, during the year 1941-42, in the States of New South Wales, Victoria and Western Australia. In South Australia the reduction was made in the last half of 1940-41.

The reduction was generally 25 per cent., except in the case of New South Wales, where it was 20 per cent. In July, 1942, Australian Capital Territory fees were reduced by 15 per cent.

AVERAGE REVENUE PER VEHICLE FROM REGISTRATION FEES AND MOTOR TAX (EXCLUDING MOTOR CYCLES).

State or Territory.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
New South Wales ..	7 19 10	9 1 4	8 18 2	7 18 10	7 16 6
Victoria ..	7 6 0	7 8 6	7 4 7	6 3 8	6 4 7
Queensland ..	6 15 11	7 7 10	7 8 1	5 14 11	5 15 1
South Australia ..	7 9 10	7 15 6	5 19 8	6 6 4	6 2 3
Western Australia ..	6 6 0	6 8 1	6 4 8	5 17 8	6 0 5
Tasmania ..	6 13 3	7 5 1	7 6 3	7 12 11	7 13 10
Northern Territory ..	1 11 0	1 19 8	1 18 6	1 11 8	1 1 4
Aust. Cap. Territory	5 15 2	5 16 10	5 8 1	5 9 10	5 7 5
Australia ..	7 7 9	7 18 6	7 12 5	6 14 10	6 14 0

6. New Vehicles Registered.—(i) Year 1943-44. The following table gives the number of new vehicles registered in each State during 1943-44 :—

NEW MOTOR VEHICLES REGISTERED, 1943-44.

(Excludes Defence Service Vehicles.)

Vehicles.	N.S.W.	Vic.	Q'land.	S.A.(b)	W.A.	Tas.	A.C.T.	Total.
Motor Cars ..	188	527	22	36	21	29	2	825
Commercial Vehicles, etc. . .	3,868	(a) 3,306	2,644	1,176	1,110	523	8	12,635
Motor Cycles ..	137	70	19	5	109	..	..	340
Total ..	4,193	3,903	2,685	1,217	1,240	552	10	13,800

(a) Includes vehicles registered as primary producers' vehicles.

(b) Excludes Northern Territory.

Particulars of the number of new vehicles registered during 1944-45 and 1945-46 will be found in the Appendix to this volume.

(ii) Years 1938-39 and 1940-41 to 1943-44. Particulars of the number of new vehicles registered in Australia during the years 1938-39 and 1940-41 to 1943-44 are shown in the following table :—

NEW MOTOR VEHICLES REGISTERED : AUSTRALIA.(a)

(Excludes Defence Service Vehicles.)

Vehicles.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Motor cars ..	54,107	17,765	4,005	2,360	825
Commercial vehicles etc. (b)	24,927	10,168	5,188	3,084	12,635
Motor cycles ..	7,370	2,589	923	389	340
Total ..	86,404	30,522	10,116	5,833	13,800

(a) Excludes Northern Territory. Victoria.

(b) Includes vehicles registered as primary producers' vehicles.

7. **Petrol Rationing.**—(i) *Introductory.* Soon after the outbreak of the 1939–45 War, it was apparent that exchange difficulties would necessitate some modification of import policy in relation to several commodities, one of the principal being petrol. It was apparent also that internal rationing would be the most useful measure with which to combat these difficulties. Nevertheless, initial proposals for petrol rationing were strongly opposed and its introduction was delayed until 1st October, 1940, when the necessary diversion of tankers to assist in the defence of Britain, added to the initial exchange difficulties, emphasised the need for it. Great Britain and New Zealand had introduced rationing many months before the quickening tempo of the war in Europe made rationing in this country inescapable.

(ii) *The Original Scheme.* The scheme introduced was on a much less severe scale than originally proposed and provided for a basic ration of petrol sufficient for approximately 4,000 miles running per annum. This gave the private motorist owning a car in the 20–30 h.p. class, for example, a ration of 19 gallons a month.

Rationing was confined from the outset to “motor spirit”, and to diesel oil fuel in so far as it was used in motor vehicles. It was recognized, however, that fuel oil for industrial purposes, power kerosene for farm tractors, lighting kerosene, lubricating oils and other petroleum products, such as mineral turpentine, dry cleaner spirit, solvents, etc., which were not included in the rationing formula could be used in various ways as motor fuel, either straight or mixed with ordinary petrol. Hence, to safeguard as far as possible against defeat of the rationing of petrol by use of other petroleum products, the introduction of the Liquid Fuel Regulations was accompanied by an Order of the Board under those regulations, prohibiting the use of any such substances as or for motor fuel (see (ix) *Prohibited Fuels*.)

Necessary legal powers were prescribed in a set of National Security (Liquid Fuel) Regulations under which was constituted a Commonwealth Liquid Fuel Control Board to administer the rationing scheme and formulate policy in respect of the treatment to be accorded various sections of consumers. The Commonwealth Board has remained throughout a policy-determining body only, actual administration, issue of licences and ration tickets being made in each State by a State Liquid Fuel Board. As each State has a separate motor vehicle registration and transport administration, it was logical that these established State instrumentalities should act on behalf of the Commonwealth and become the liquid fuel licensing authorities for the rationing of petrol.

Consumers were licensed in the following classes according to function:—private motorist, business car user, farm vehicle, retail delivery, heavy haulage, boats, taxis and other miscellaneous groups. Each consumer was issued with a licence appropriate to his class showing the number of gallons to which he would be entitled and for which he could obtain ration tickets each month on application to a post office or issuing office. As the ration scale was altered from time to time, the quantity shown on the licence became a “base” figure from which the ticket issuing clerk ascertained the reduced monthly ration.

So far as was practicable, consistent with the maintenance of essential food and transport services, consumers in the various classes were restricted to the “scale ration.” Individual consideration had to be given in a large number of cases, however, where a set monthly ration on a restricted scale was inapplicable if the war effort was to be maintained, and State Boards have made use of wide discretionary powers in allotting additional rations by way of special licences to cover seasonal activity, special construction works, munitions transport, food distribution and so on. In this work, State Boards were assisted to a great extent by honorary local advisory committees set up throughout country districts in practically all States. In New South Wales, however, local police were employed as actual licensing authorities, subject to directions from the State Board. In this way, close contact was maintained by the administration with essential petrol requirements of different sections of primary industry. Many groups

of essential users and Government Departments were provided with advances of petrol ration tickets on an imprest basis without the formality of an actual licence, tickets being replenished from month to month in accordance with actual usage.

Licences issued at the inception of rationing, October, 1940, totalled roughly one million, with an estimated allotted gallonage of 27,000,000 monthly.

(iii) *Further Restrictions.* Compared with pre-war consumption of 30,000,000 gallons a month, little saving had thus been effected and commencing in April, 1941, progressive reductions in allowances were made, including a complete revision of all the business car classes. By July, 1941, consumption was in the vicinity of 20,000,000 gallons a month.

National stocks of petrol continued to decline, imports were at a particularly low level, and prospects of increased supplies were not bright. In the light of the deterioration of the war position, the Prime Minister announced that civil consumption would have to be reduced to 12,000,000 gallons a month. The first step to this end was to reduce the basic ration to the equivalent of only 1,000 miles per annum and impose flat rate cuts varying from twenty to fifty per cent. on all other classes of licences.

The average monthly consumption for civilian purposes from August, 1941, to January, 1942, was nevertheless 15,000,000 gallons, as it was impossible at first to resist urgent claims for extra rations from essential transport operators. This was later done progressively as greater rationalization of activities was brought about and vehicles were adapted to the use of substitute fuel. Following the entry of Japan into the war in December, 1941, the administration intensified its campaign to compel the use of substitute fuel, particularly producer gas units, and, combined with still further reductions in private and business allowances, monthly consumption was reduced by March, 1942, to approximately 12,000,000 gallons per month.

A survey of the licensing position of various groups in March, 1942, compared with the position at the inception of rationing in October, 1940, is shown in the following table. Class 19 was cancelled:—

Class.	Description.	Number of Licences.		Estimated Gallonage Allotted.	
		October, 1940.	March, 1942.	October, 1940.	March, 1942.
1	Essential user	(a)	(a)	1,500,000	1,400,000
2	Private motorist	420,000	(b) 370,000	66,000,000	41,200,000
3-7	Business user	197,000	(c) 200,000	5,000,000	2,400,000
8	Farm vehicles	80,000	75,000	1,700,000	900,000
9-13	Other commercial vehicles and trucks	115,000	110,000	6,700,000	3,000,000
14-16	Taxis, Drive Yourself and tourist	6,000	6,000	800,000	300,000
17-18	Buses, service cars	2,000	2,000	700,000	400,000
20-25	Miscellaneous	170,000	170,000	2,000,000	1,000,000
	Special licences, Government imprest advances and other allocations not on regular licences .. ..	..	..	2,600,000	1,500,000
		..	..	27,000,000	12,100,000

(a) Estimate of number of licences not significant as not related in any way to number of vehicles employed. (b) Includes private motor cycles previously in Class 7. (c) Basic ration of approximately 1,000 miles a year. (d) Basic ration of approximately 800 miles a year. (e) Includes a number transferred from Class 2 with legitimate claims to more than basic ration.

(iv) *Special Emergency Plans.* Early in 1942, when there was danger of invasion of Australia by Japanese forces, steps were taken by the Commonwealth Liquid Fuel Control Board, in conjunction with the Army, to prepare an emergency scheme for the rapid alteration of petrol rationing arrangements should such action be necessary in any particular zones. To this end the whole continent was divided into military districts and local officers within the operational zones were handed sealed instructions to be followed on the receipt of notification that invasion was imminent. All motor spirit consumers' licences were marked with a priority number indicating the degree of essentiality of the use of the vehicle concerned.

Except for a limited period in an area of Northern Queensland, the emergency scheme was not implemented and hence the priority did not possess any real significance insofar as the rationing of petrol was concerned.

(v) *Increase in Ration Scale.* This position was maintained up to the middle of 1944 when, with the improvement in the war situation and intensification of food producing activities, the determination of increased claims for additional allowances and requests to discard use of producer gas units resulted in a gradual increase in consumption without any specific amendment of the rationing schedules. By the end of 1944, the substitute fuel policy could be effectively maintained no longer and with the end of the European war was finally abandoned.

Due chiefly to relaxation of producer gas policy, and also to increased car registrations and release over the previous two years of a substantial number of new commercial vehicles imported under Lend Lease, the monthly consumption had increased to approximately 16,000,000 gallons by August, 1945.

The first general increase in the ration scale took effect from September, 1945, when the rations of private motorists and primary producers were increased by twenty-five per cent. With a further all round increase of twenty-five per cent. to all classes for October, 1945, the civilian consumption rose to approximately 20,000,000 gallons a month. As the result of a further increase from 1st February, 1946, consumption is expected to approximate 27,000,000 gallons per month.

(vi) *Substitute Fuels.* An integral part of the problems of rationing imported petrol was the encouragement and development of substitute fuels. The most important substitute was producer gas and it was estimated that during 1942-43 up to 60,000 vehicles were at one time equipped to run on charcoal-burning units. Each State Government accepted responsibility for production and distribution of charcoal within its borders. Following the entry of Japan into the war the demand for gas producer equipment in relation to manufacturing capacity was such that a permit system was introduced so as to ensure that as many vehicles as possible of those engaged in essential transport were equipped to run on charcoal. It was envisaged that if Australia were to be cut off from overseas supplies a proportion at least of essential transport would have been able to function. The permit system was relaxed as the war situation improved during 1944. Strong opposition to the use of gas producer units was encountered because of the loss of efficiency, wear and tear on vehicles, and inconvenience of handling. Nevertheless, during the critical period of 1942 the Liquid Fuel Board brought pressure to bear by with-holding or reducing petrol rations to a point that made conversion to some substitute fuel imperative.

Power alcohol was also produced in increasing quantities from molasses and raw sugar. Distilleries not equipped to produce an anhydrous spirit were pressed into service during 1942-43 and production of 95 per cent. or "Wet" alcohol at one stage reached the rate of about 2,000,000 gallons per annum. The Government also pressed on with development of the works for production of oil from shale at Glen Davis, New South Wales, but results were comparatively disappointing. Quite a number of small scale plants for retorting oil from shale were set up at various other points in New South Wales, but output was generally of very inferior quality and the actual quantity produced in relation to overall consumption was negligible.

(vii) *Ration Ticket Issues and Retail Sales.* Ration tickets are printed in denominations of 1, 2, 5, 10 and 44 gallons. The design and colour of tickets are altered every two months to minimize risk of counterfeiting. Tickets are issued monthly and issuing offices were required to balance up ticket advances, issues and stock on hand at the end of each two monthly currency period.

Whenever purchasing, petrol consumers are required to sign and surrender tickets endorsed with vehicle registration and licence numbers. Resellers in turn are required to surrender cancelled tickets in sealed endorsed envelopes to bulk tank waggon drivers. These envelopes are eventually checked by the State Boards against oil companies' records of sales and contents of envelopes against resellers' monthly returns of stocks and deliveries. This close check of transactions at all stages has been instrumental in securing general observance of the regulations. Every reseller is licensed and State Boards are vested with power to delicense traders who persist in failing to observe the regulations and procedures laid down.

(viii) *Wholesale Distribution.* From the inception of rationing until the middle of 1942, importing and distributing oil companies acted independently and the work of checking records and controlling sales particularly through agents was in consequence rather difficult. As from August, 1942, the distribution of petrol was carried out by a single organization known as Pool Petroleum Pty. Ltd. and records of sales were centralized in one office in each State. The formation of this organization contributed materially towards ensuring adherence to the regulations.

(ix) *Prohibited Fuels.* Petroleum products, other than motor spirit, can be used with varying degrees of efficiency as fuel in road vehicles. There has been a constant temptation for consumers to use power or lighting kerosene, solvents and other special petroleum fractions in conjunction with their allotted petrol ration. Such usage was declared illegal from the outset and policing of vehicles on the road resulted in a substantial number of prosecutions for use of prohibited fuel. As all of these products were imported in the same way as motor spirit, their conservation was just as important as the conservation of petrol. The institution of separate administrative machinery for rationing of these fuels was not warranted and the Board relied on policing and the deterrent of prosecution and cancellation of licences.

8. *War-time Control of Tyres, Spare Parts and Mechanical Services.*—With the deterioration of the position of the war in the Pacific it was necessary to introduce control over the distribution of new tyres and, subsequently, recapping and retreading facilities and also over spare parts and mechanical services. The priority classifications already marked on motor spirit consumers' licences, which are referred to in paragraph (iv) above, were an invaluable aid to the introduction of these controls. In the initial stages the liquid fuel priority classifications were adopted by the Rubber and Parts administrations as the prime determinant in connexion with applications received. At a later date, as the administrations developed and the supply position became clearer, individual consideration was given to applications for release of tyres and parts, but, throughout, the liquid fuel priorities were used as a guide when considering claims. The detailed administrative work associated with the release of tyres and parts was carried out to a large extent by the established State Transport-Liquid Fuel authorities.

G. TRAFFIC ACCIDENTS.

1. *General.*—The practice of reporting accidents occurring in public thoroughfares is not uniform throughout Australia. In New South Wales the reporting of minor accidents has not been enforced, while all other States require that all accidents be reported. Hence the figures for New South Wales are not comparable with those for other States with regard to the number of accidents, and to a lesser extent with regard to the number of persons injured.

2. Total Accidents Registered.—(i) Year 1943-44. The following table gives particulars of the number of persons killed or injured in accidents (known to the police) which occurred in public thoroughfares during 1943-44 :—

ACCIDENTS (KNOWN TO THE POLICE) WHICH OCCURRED IN PUBLIC THOROUGHFARES : PERSONS KILLED AND INJURED, 1943-44.

State or Territory.	Accidents.	Persons Killed.			Persons Injured.		
		Number.	Per 1,000 of Mean Population.	Per 100 Motor Vehicles Registered.	Number.	Per 1,000 of Mean Population.	Per 100 Motor Vehicles Registered.
New South Wales	6,955	371	0.13	0.13	4,719	1.65	1.71
Victoria ..	7,490	266	0.13	0.11	4,219	2.12	1.73
Queensland ..	6,417	230	0.22	0.18	3,188	3.01	2.55
South Australia ..	4,887	71	0.12	0.08	1,457	2.36	1.66
Western Australia	3,241	118	0.24	0.21	623	1.29	1.08
Tasmania ..	2,170	33	0.14	0.13	566	2.32	2.21
Aus. Cap. Territory	26	..	..	..	13	0.91	0.07
Total ..	31,186	1,089	0.15	0.13	14,785	2.04	1.81

The ages of the persons killed or injured are given below :—

AGES OF PERSONS KILLED OR INJURED, 1943-44.

State or Territory	Under 10 years.		10 to 59 years.		60 years and over.		Age not known.		Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
N. S. Wales ..	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	371	4,719.
Victoria ..	21	401	183	3,180	60	479	2	159	266	4,219.
Queensland ..	(b) 26	(b) 343	(c) 173	(c) 2,507	30	290	1	48	230	3,188
South Aust. ..	4	149	50	1,140	17	168	..	..	71	1,457
Western Aust.	(d) 15	(d) 111	(e) 86	(e) 447	(f) 17	(f) 65	..	..	118	623.
Tasmania ..	1	69	25	444	7	53	..	..	33	566
Aus. Cap. Terr.	..	1	..	10	..	..	..	2	..	13.
Total ..	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	1,089	14,785.

(a) Not available. (b) Under 15. (c) Fifteen to 59. (d) Under 16. (e) Sixteen to 60
(f) Over 60.

(ii) Years 1935-36 to 1943-44. Approximate figures relating to the persons killed and injured in traffic accidents in Australia during the years 1935-36 to 1943-44 are given hereunder :—

ACCIDENTS (KNOWN TO THE POLICE) WHICH OCCURRED IN PUBLIC THOROUGHFARES : PERSONS KILLED AND INJURED, AUSTRALIA.

Particulars.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.
Persons killed ..	1,356	1,391	1,483	1,426	1,560	1,298	1,290	1,340	1,089.
„ injured ..	22,126	22,940	25,097	25,653	26,142	23,340	17,529	16,236	14,785

For further particulars of Traffic Accidents see *Transport and Communication Bulletin* No. 35.

H. AVIATION.

1. **Historical.**—A short review of the progress of civil aviation in Australia up to the date of foundation of a Civil Aviation Administration appears in Official Year Book No. 16, pp. 334-5.

2. **Civil Aviation Administration.**—A brief account of the foundation and objects of this Administration will be found in Official Year Book No. 19, p. 299. In 1936 the organization was changed and the responsibility of regulating and controlling civil aviation in Australia was entrusted to a Board, consisting of four members and a secretary. The Board was responsible to the Minister for Defence and continued to function as a unit of the Defence Department organization until November, 1938. In January, 1939, the Civil Aviation Board was abolished and the Civil Aviation Administration was made a separate Department under the Minister for Civil Aviation. The permanent Head of the Department is the Director-General of Civil Aviation.

3. **Oversea Air Services.**—In addition to the air services operating solely within Australia the following overseas services were in operation prior to the outbreak of war in Europe in September 1939 :—Sydney-Darwin-Singapore Service, connecting at Singapore with British Overseas Airways Service; Sydney-Rabaul (Papua) Service; Trans-Tasman (Sydney-Auckland, New Zealand) Service and K.N.I.L.M. (Sydney-Batavia, Netherlands East Indies) Service. A notable development during 1940 was the inauguration by Pan-American Airways of the San Francisco-Auckland Service, which provided connexion with Sydney through the Trans-Tasman Service.

Despite the outbreak of war Qantas Empire Airways Limited, which operated the Sydney-Darwin-Singapore Service, was able to operate without any major interruptions and on 16th October, 1941, took over the operation of the Singapore-Karachi (India) Section on behalf of British Overseas Airways. The entry of Japan into the war in December, 1941, however resulted in the suspension of the service on 19th February, 1942. The flying boats of the company assisted in the evacuation of personnel from Singapore and Java and on completion of this work were made available on charter to the United States Army. From 1st May, 1942, the company commenced a twice weekly service between Sydney and Darwin and a weekly service between Sydney and Noumea (New Caledonia) was operated during the period 15th June to 17th September, 1942.

The K.N.I.L.M. (Dutch) Service also assisted in the evacuation of personnel from Netherlands East Indies and suspended operations following the capture of the Indies by the Japanese. The company's aircraft were brought to Australia and taken over and operated by the United States Authorities. The Sydney-Rabaul service was also suspended from 13th February, 1942, owing to enemy action.

The Trans-Tasman Air Service continued to operate to a frequency of three return trips per fortnight up to 31st December, 1941. The suspension of the Pan American San Francisco-Auckland Service and difficulty in obtaining engine spares resulted in the reduction from 1st January, 1942, of the frequency to once weekly in each direction. From 4th August, 1942, the frequency was restored to the original three return trips per fortnight. It was increased from 1st January, 1944, to two trips weekly and from 12th June, 1944, to three trips per week.

In May, 1943, the United Kingdom Government proposed the inauguration of an Australia-Ceylon air service. Survey and service flights were carried out during June, 1943, and the service was operated in July, 1943, by Qantas Empire Airways Ltd. as agents for British Overseas Airways Corporation. Catalina flying boats were used on the service with a frequency of one return trip weekly. The service was extended to Karachi (India) from 3rd November, 1943, and the frequency increased to three return trips per fortnight. From 7th December, 1944, the frequency was reduced to one return

trip weekly. Liberator land planes were utilized in addition to the Catalina Service from 17th June, 1944, and have operated between Perth and Colombo on a twice weekly frequency from 13th November, 1944. From 30th November, 1945, the terminal port for Liberator land planes was changed to Sydney. This has been necessitated by post-war developments and as a step towards the restoration of services on the pre-war Australia-England air route through Darwin and Singapore.

On the 2nd June, 1945, a fast service operated jointly by British Oversea Airways Corporation and Qantas Empire Airways Ltd. was commenced between Australia and England. Lancastrian aircraft are used and the service provides a three days passage between terminal points with a frequency of one return trip weekly. Official mail and high priority passengers only are carried.

The Australia-New Guinea service was resumed on 2nd April, 1945, when Qantas Empire Airways Ltd. commenced a service from Sydney to Lae (New Guinea). The once weekly frequency was increased to twice weekly from 27th April, 1945.

4. Statistical Summary.—The collection and compilation of aircraft statistics were undertaken by this Bureau as from 1st July, 1922. The following table gives a summary of operations for the year 1938-39 and the four years ended 30th June, 1944. Figures shown exclude, as far as possible, the operations of aircraft chartered for Defence purposes.

CIVIL AVIATION IN AUSTRALIA : SUMMARY.

Particulars.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Registered aircraft owners					
(a) No.	149	120	119 (c)	128	116
Registered aircraft(a) ..	296	202	192 (c)	184	185
Licensed pilots—(a)					
Private	1,096	502	240	171	159
Commercial ..	346	187	181	233	305
Licensed navigators(a) ..	59	76	54	61	96
Licensed aircraft radio telegraph operators(a) No.	75	58	60	69	111
Licensed aircraft radio telephone operators(a) No.	..	38	38	53	64
Licensed ground engineers (a) No.	525	617	717	924	1,039
Aerodromes—(a)					
Government	71	79	72	69	69
Public	213	212	207	207	206
Government emergency grounds No.	147	116	116	96	78
Hours flown	121,935	79,164	69,302	58,185	84,274
Approx. mileage miles '000	14,099	9,700	8,925	7,517	10,082
Passengers carried—					
Paying No.	123,566	145,666	149,791	130,878	232,161
Non-paying	24,353	8,593	5,422	2,647	3,614
Total	147,919	154,259	155,213	133,525	235,775
Freight carried .. lb. '000	1,735	2,115	2,588	2,066	3,132
Mails, (b)	739	547	879	1,660	2,815
Accidents—					
Persons—killed No.	38	3	18	4	1
injured	15	1	3	3	1

(a) At 30th June.

(b) Includes gross weight of overseas mail.

(c) At 31st October, 1943.

Particulars of the operations of oversea air services for the year 1943-44 are shown in the following table:—

CIVIL AVIATION, OVERSEA SERVICES, 1943-44.

Service.	Hours Flown.	Miles Flown.	Passengers carried.		Freight Carried.	Mail Carried.(a)
			Paying.	Total.		
	No.	No. '000.	No.	No.	tons.	tons.
Indian Ocean (b) (Perth-Colombo-Karachi) ..	5,042	644	541	546	9.0	39.3
Trans-Tasman (Auckland-Sydney) ..	1,818	279	3,560	3,579	20.1	43.5

(a) Gross weight.

(b) Particulars of this service are included in the table above.

Figures relating to the operations of civil aircraft in Australia during 1944-45 will be found in the Appendix to this volume.

5. New Guinea Activities.—Previous issues give particulars of the development of civil aviation in New Guinea, and of the operating companies at the outbreak of war with Japan.

The following table gives a summary of operations for the four years ended 30th June, 1941 and for the three months ended September, 1941.

CIVIL AVIATION IN TERRITORY OF NEW GUINEA: SUMMARY.

Particulars.	1937-38.	1938-39.	1939-40.	1940-41.	1941-42. (c)
Registered aircraft owners					
(a) No.	10	10	9	11	1
Registered aircraft(a) ..	40	47	43	41	3
Licensed pilots—(a)					
Private	12	13	(b)	5	..
Commercial	24	23	(b)	16	..
Licensed navigators(a) ..	2	3	(b)	4	..
Licensed aircraft radio operators(a) .. No.	..	1	1	2	..
Licensed ground engineers (a) No.	37	46	(b)	37	6
Aerodromes—(a)					
Government	21	24	30	40	..
Public	19	19	23	18	..
Government emergency landing grounds No.	6	11	13	17	..
Hours flown	15,445	15,626	13,814	11,965 (c)	2,508
Approx. mileage miles '000	1,560	1,456	1,254	1,095 (c)	216
Passengers carried—					
Paying No.	12,247	12,909	15,433	12,995 (c)	2,919
Non-paying	1,017	1,569	1,551	993 (c)	194
Total	13,264	14,478	16,984	13,988 (c)	3,113
Freight carried lb. '000	25,574	27,064	23,500	19,855 (c)	4,124
Mails,	167	163	147	101 (c)	21
Accidents—					
Persons—killed No.	1	..	8	2	..
injured	1	1	1	1	..

(a) At 30th June.
not available.

(b) Not available.

(c) July to September, 1941 only. Further particulars

I. POSTS, TELEGRAPHS AND TELEPHONES.

§ 1. General.

1. **The Commonwealth Postal Department.**—Under the provisions of the Commonwealth Post and Telegraph Act 1901, the Commonwealth Postal Department was placed under the control of the Postmaster-General, being a responsible Minister. The Director-General of Posts and Telegraphs controls the Department under the Postmaster-General, whilst the principal officer in each State is the Deputy-Director of Posts and Telegraphs.

The considerable expansion of postal business of all kinds for which war conditions were responsible is reflected in the gross revenue of the Department which increased by 54 per cent. during the five years ended 30th June, 1944.

2. **Postal Facilities.**—(i) *Relation to Area and Population.* The following statement shows the number of post offices, the area in square miles and the number of inhabitants to each post office (including non-official offices) in each State and in Australia at 30th June, 1944. In order to judge clearly the relative postal facilities provided in each State, the area of country to each office as well as the number of inhabitants per office should be taken into account. The returns given for South Australia in this and all succeeding tables include those for the Northern Territory, and the returns for the Australian Capital Territory are included in those for New South Wales.

**POSTAL FACILITIES : RELATION TO AREA AND POPULATION,
AT 30th JUNE, 1944.**

State.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.
Number of post offices (a) ..	2,495	2,528	1,242	799	605	508	8,177
Number of square miles of territory to each office in State ..	124	35	540	1,131	1,613	52	364
Number of inhabitants to each office	1,150	787	852	781	797	480	889
Number of inhabitants per 100 square miles	924	2,263	158	69	49	931	244

(a) Includes "official," "semi-official," and "non-official" offices.

The foregoing table does not include "telephone" offices at which there is no postal business.

(ii) *Number of Offices.* The following table shows the number of post offices in each State for the years 1924, 1934, 1943 and 1944 :—

NUMBER OF POST OFFICES.

State	At 30th June—							
	1924.		1934.		1943.		1944.	
	Official and Semi-Official.	Non-Official. (a)	Official and Semi-Official.	Non-Official. (a)	Official and Semi-Official.	Non-Official. (a)	Official and Semi-Official.	Non-Official. (a)
New South Wales ..	460	2,183	436	2,013	467	2,036	468	2,027
Victoria ..	273	2,399	275	2,271	305	2,241	302	2,226
Queensland ..	215	1,044	186	1,016	208	1,030	216	1,026
South Australia ..	143	662	144	628	153	646	152	647
Western Australia ..	137	709	124	449	133	476	135	470
Tasmania ..	47	495	42	466	46	462	46	462
Australia ..	1,275	7,492	1,207	6,843	1,312	6,891	1,319	6,858

(a) Includes offices previously designated as "Allowance" and "Receiving" Offices.

(iii) *Employees and Mail Contractors.* The number of employees and mail contractors in the Central Office and in each of the States at specified dates is given in the following table :—

POSTAL EMPLOYEES AND MAIL CONTRACTORS.

State.	At 30th June—							
	1924.		1934.		1943.		1944.	
	Em- ployees.	Mail Con- tractors.	Em- ployees.	Mail Con- tractors.	Em- ployees.	Mail Con- tractors.	Em- ployees.	Mail Con- tractors.
Central Office ..	100	..	202	..	548	..	579	..
New South Wales ..	13,947	1,791	13,220	1,953	21,542	2,411	22,171	2,537
Victoria ..	10,279	1,133	9,979	1,070	17,303	1,636	17,563	1,680
Queensland ..	6,220	819	4,908	1,209	8,365	1,436	8,830	1,355
South Australia ..	4,014	354	3,280	301	5,063	529	5,166	542
Western Australia ..	2,450	382	2,629	342	4,192	406	4,356	350
Tasmania ..	1,582	206	1,391	242	1,891	222	1,930	213
Australia ..	38,592	4,685	35,609	5,117	58,904	6,640	60,595	6,677

3. *Gross Revenue, Branches—Postmaster-General's Department.* The gross revenue (actual collections) in respect of each branch of the Department during each of the years 1940-41 to 1943-44 in comparison with 1938-39 is shown in the table hereunder :—

POSTMASTER-GENERAL'S DEPARTMENT: GROSS REVENUE.

Branch and Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Postal—	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1938-39 ..	3,048	2,042	1,067	552	502	211	7,422
1940-41 ..	3,350	2,274	1,090	595	497	206	8,012
1941-42 ..	3,794	2,753	1,322	768	588	250	9,475
1942-43 ..	3,936	2,761	1,686	900	657	262	10,202
1943-44 ..	4,047	3,062	2,031	1,001	720	302	11,163
Telegraph—							
1938-39 ..	502	341	234	118	139	38	1,372
1940-41 ..	551	409	233	120	137	32	1,482
1941-42 ..	676	492	308	157	163	33	1,829
1942-43 ..	874	959	540	216	233	38	2,860
1943-44 ..	962	949	724	251	221	41	3,148
Wireless—							
1938-39 ..	198	152	59	53	36	18	516
1940-41 ..	269	199	89	70	47	24	698
1941-42 ..	252	157	85	70	47	24	635
1942-43 ..	243	187	78	65	43	22	638
1943-44 ..	249	189	79	67	42	23	649
Telephone—							
1938-39 ..	3,261	2,352	1,098	696	431	202	8,040
1940-41 ..	3,609	2,648	1,169	748	468	226	8,868
1941-42 ..	3,914	2,919	1,274	829	503	248	9,687
1942-43 ..	4,129	3,243	1,454	969	610	286	10,691
1943-44 ..	4,645	3,434	1,699	988	656	298	11,720
All Branches—							
1938-39 ..	7,009	4,887	2,458	1,419	1,108	469	17,350
1940-41 ..	7,779	5,530	2,581	1,533	1,149	488	19,060
1941-42 ..	8,636	6,321	2,989	1,824	1,301	555	21,626
1942-43 ..	9,182	7,150	3,758	2,150	1,543	608	24,391
1943-44 ..	9,903	7,634	4,533	2,307	1,639	664	26,680
Total revenue per capita—	£	£	£	£	£	£	£
1938-39 ..	2.55	2.61	2.44	2.36	2.40	1.98	2.50
1940-41 ..	2.78	2.88	2.50	2.53	2.46	2.03	2.70
1941-42 ..	3.06	3.23	2.89	2.97	2.77	2.32	3.03
1942-43 ..	3.24	3.63	3.60	3.51	3.21	2.52	3.39
1943-44 ..	3.45	3.84	4.28	3.70	3.40	2.72	3.67

Compared with the corresponding figures for the previous year, an increase of 9.4 per cent. is shown in the gross revenue earned for the year 1943-44. Increases in the several branches were as follows:—Postal 9.4 per cent., Telegraph 10.1 per cent., Telephone 9.6 per cent. and Wireless 1.7 per cent.

The gross revenue in 1943-44 was 53.8 per cent. higher than in the last complete pre-war year, 1938-39, the corresponding percentage increases for the several branches being as follows:—Postal 50.4, Telegraph 129.4, Wireless 25.8, and Telephone 45.8.

4. **Expenditure, Postmaster-General's Department.**—(i) *Distribution.* The following table shows, as far as possible, the distribution of actual expenditure on various items in each State during the year ended 30th June, 1944. The table must not be regarded as a statement of the working expenses of the Department, since items relating to new works, interest, etc. are included therein.

POSTMASTER-GENERAL'S DEPT. : DISTRIBUTION OF EXPENDITURE, 1943-44.

Particulars.	Central Office.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia
	£	£	£	£	£	£	£	£
Expenditure from Ordinary Votes—								
Salaries and payments in the nature of salary ..	67,762	3,318,858	2,511,527	1,429,433	787,105	590,636	283,011	8,988,332
General expenses ..	3,481	231,744	171,579	74,687	58,576	39,129	12,616	591,812
Stores and material ..	2,017	166,181	609,838	98,447	34,425	35,738	13,308	959,954
Mail services ..	1,461,723	560,989	376,302	317,710	111,298	108,887	45,896	2,982,805
Engineering services (other than New Works) ..	119,570	1,870,910	1,272,968	764,912	387,428	333,693	153,025	4,902,506
Other services ..	45,630	..	..	..	..	..	..	45,630
Total ..	1,700,183	6,148,682	4,942,214	2,685,189	1,378,832	1,108,083	507,856	18,471,039
Pensions and retiring allowances ..	..	11,549	14,772	..	..	19,761	..	46,082
Bent, repairs, maintenance, fittings, etc. ..	..	36,378	51,998	38,761	10,412	8,932	2,914	149,395
Proportion of audit expenses ..	..	5,148	3,550	1,898	1,117	858	429	13,000
New Works(b)—								
Telegraph, telephone and wireless ..	6,869	1,026,286	732,500	494,184	145,000	142,100	52,518	2,599,457
New Buildings, etc. ..	..	145,715	48,783	110,925	20,789	5,319	2,250	333,811
Other expenditure not allocated to States ..	3,802,061	..	..	..	..	..	..	3,802,061
Grand Total ..	5,509,113	7,373,758	5,793,817	3,330,957	1,556,150	1,285,083	565,967	25,414,845

(a) Expenditure on air-mail services, etc. of apportionment to States not available.

(b) Includes expenditure from loan.

(c) Particulars

(d) Includes expenditure not apportioned to States.

A comparative table for the year 1942-43 is contained in the *Transport and Communication Bulletin* No. 34, p. 43.

(ii) *Total, 1938-39 to 1943-44.* The next table gives the actual payments made, as shown by records kept for Treasury purposes in respect of the Postmaster-General's Department, for each of the last six years:—

POSTMASTER-GENERAL'S DEPARTMENT : EXPENDITURE.

	1938-39.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.
	£	£	£	£	£	£
Total Expenditure	18,873,934	18,475,805	19,116,132	20,500,999	22,841,180	25,414,845

The total expenditure increased by 11.4 per cent. during 1942-43 and 11.3 per cent. during 1943-44, and was 34.7 per cent. higher in 1943-44 than in 1938-39.

5. Profit or Loss, Postmaster-General's Department.—(i) *States, 1943-44.* The foregoing statement of gross revenue and expenditure represents actual collections and payments made and cannot be taken to represent the actual results of the working of the Department for the year. The net results for each branch in the several States, after providing for working expenses, depreciation and interest charges, including exchange, were as follows:—

POSTMASTER-GENERAL'S DEPARTMENT : PROFIT OR LOSS, 1943-44.

Branch.	Profit or Loss.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
		£	£	£	£	£	£	£
Postal ..	{ Profit	884,158	641,212	357,769	266,068	114,196	72,663	2,336,066
	{ Loss	..	..	..	..	..	..	..
Telegraph ..	{ Profit	299,076	170,019	311,281	97,459	71,270	2,745	951,850
	{ Loss	..	..	..	..	..	..	..
Wireless ..	{ Profit	..	25,317	..	16,263	..	..	..
	{ Loss	21,220	..	22,608	..	16,271	5,766	24,285
Telephone ..	{ Profit	1,410,448	938,121	406,569	168,786	102,636	6,912	3,033,472
	{ Loss	..	..	..	..	..	..	..
All Branches ..	{ Profit	2,572,462	1,774,669	1,053,011	548,576	271,831	76,554	6,297,103
	{ Loss	..	..	..	..	..	..	..

After providing for depreciation, pensions and retiring allowances and interest on capital, the year 1943-44 closed with a surplus of £6,297,103 compared with a surplus of £6,142,645 in 1942-43 and of £3,625,371 in 1938-39.

(ii) *Branches, 1938-39 to 1943-44.* The following statement gives particulars of the operating results of each branch for the years 1938-39, 1940-41 to 1943-44:—

POSTMASTER-GENERAL'S DEPARTMENT : PROFIT OR LOSS, BRANCHES.

Year.		Branch Profits—				
		Postal.	Telegraph.	Wireless.	Telephone.	All Branches.
		£	£	£	£	£
1938-39..	..	2,105,208	51,617	76,054	1,392,492	3,625,371
1940-41..	..	2,174,737	104,797	113,301	1,674,911	4,067,746
1941-42..	..	2,916,343	404,005	58,477	2,139,968	5,518,793
1942-43..	..	2,848,416	946,024	33,037	2,381,242	6,142,645
1943-44..	..	2,336,066	951,850	24,285	3,033,472	6,297,103

NOTE.—Minus sign (—) represents deficit.

6. **Capital Account.**—The appended statement shows particulars of the fixed assets of the Postmaster-General's Department from 1st July, 1943, to 30th June, 1944 :—

POSTMASTER-GENERAL'S DEPARTMENT : FIXED ASSETS.

Particulars.	Net Value, 1st July, 1943.	Capital Expenditure 1943-44.	Gross Value, 30th June, 1944.	Less Deprecia- tion, &c. 1943-44. (a)	Net Value, 30th June, 1944.
	£	£	£	£	£
Telephone service plant (ex- cluding trunk lines) ..	46,233,633	2,610,588	48,844,221	523,321	48,320,900
Trunk and telegraph service plant (aerial wires, conduits, and cables) ..	15,747,227	264,182	16,011,409	137,518	15,873,891
Telegraph service plant ..	594,248	50,840	645,088	12,281	632,807
Postal service plant ..	526,347	10,824	537,171	25,301	511,870
Wireless service plant ..	665,501	73,819	739,320	9,037	730,283
Sites, buildings, furniture and office equipment ..	12,098,600	353,011	12,451,611	47,786	12,403,825
Miscellaneous plant ..	1,169,337	326,181	1,495,518	57,475	1,438,043
Total	77,034,893	3,689,445	80,724,338	812,719	79,911,619

(a) Includes dismantled assets, depreciation written off, and assets transferred.

During the past quinquennium the value of the fixed assets has increased by 22.7 per cent., the net value at 30th June, 1939, being £65,135,489.

§ 2. Posts.

1. **Postal Matters Dealt With.**—(i) *Australia.* The following table gives a summary of the postal matter dealt with in Australia during the four years 1940-41 to 1943-44 in comparison with 1938-39. Although mail matter posted in Australia for delivery therein is necessarily handled at least twice, only the number dispatched are included in the following table, which consequently gives the number of distinct articles handled :—

POSTAL MATTER DEALT WITH : AUSTRALIA.

Year.	Letters, Postcards, and Letter-cards. (a)		Newspapers and Packets. (b)		Parcels.		Registered Articles other than Parcels.	
	Number (‘000 omitted).	Per 1,000 of Popula- tion.	Number (‘000 omitted).	Per 1,000 of Popula- tion.	Number (‘000 omitted).	Per 1,000 of Popula- tion.	Number (‘000 omitted).	Per 1,000 of Popula- tion.

POSTED WITHIN AUSTRALIA FOR DELIVERY THEREIN.

1938-39 ..	836,243	120,717	139,635	20,157	9,056	1,307	7,474	1,079
1940-41 ..	845,963	119,686	140,721	19,909	9,933	1,405	8,914	1,261
1941-42 ..	888,882	124,541	138,285	19,375	10,993	1,540	10,618	1,488
1942-43 ..	856,032	118,910	148,471	20,624	14,944	2,076	13,933	1,935
1943-44 ..	862,758	118,732	152,301	20,960	17,924	2,467	17,182	2,365

TOTAL POSTAL MATTER DEALT WITH.

1938-39 ..	993,090	130,367	165,362	23,871	9,585	1,384	8,371	1,208
1940-41 ..	898,688	127,145	160,593	22,720	11,194	1,584	9,560	1,353
1941-42 ..	941,816	131,957	158,059	22,146	13,075	1,832	11,118	1,558
1942-43 ..	887,798	123,323	163,578	22,722	16,014	2,225	14,280	1,984
1943-44 ..	907,768	124,926	170,044	23,401	18,945	2,607	17,524	2,412

(a) Packets were included prior to 1941-42.

(b) See note (a).

(ii) *States.* The next table shows the postal matter dealt with in each State during the year 1943-44.

POSTAL MATTER DEALT WITH : STATES 1943-44.(a)

State.	Letters, Postcards, and Letter-cards.		Newspapers and Packets.		Parcels.		Registered Articles other than Parcels.	
	Number ('000 omitted).	Per 1,000 of Population.	Number ('000 omitted).	Per 1,000 of Population.	Number ('000 omitted).	Per 1,000 of Population.	Number ('000 omitted).	Per 1,000 of Population.
POSTED FOR DELIVERY WITHIN AUSTRALIA.								
New South Wales	334,289	116,511	67,170	23,411	6,990	2,436	7,191	2,506
Victoria ..	252,738	127,072	40,843	20,535	4,866	2,447	4,481	2,253
Queensland ..	117,115	110,685	21,820	20,622	3,341	3,158	2,831	2,676
South Australia ..	67,835	108,753	9,451	15,152	1,372	2,200	1,181	1,893
Western Australia	55,746	115,547	8,278	17,158	1,104	2,288	953	1,975
Tasmania ..	35,035	143,553	4,739	19,418	251	1,028	545	2,233
Australia ..	862,758	118,732	152,301	20,960	17,924	2,467	17,182	2,365

POSTED FOR DELIVERY OVERSEAS.

New South Wales	7,888	2,749	2,423	845	287	100	86	30
Victoria ..	4,398	2,211	1,548	778	157	79	27	14
Queensland ..	954	902	339	320	28	26	21	20
South Australia ..	856	1,372	181	290	65	104	4	6
Western Australia	1,313	2,722	780	1,617	44	91	7	14
Tasmania ..	873	3,577	20	82	89	365	3	12
Australia ..	16,282	2,241	5,291	728	670	92	148	20

RECEIVED FROM OVERSEAS.

New South Wales	14,195	4,947	5,810	2,025	77	27	87	30
Victoria ..	4,559	2,292	3,222	1,620	146	73	50	25
Queensland ..	7,832	7,402	1,269	1,199	80	76	24	23
South Australia ..	1,171	1,877	927	1,486	24	38	10	16
Western Australia	756	1,567	933	1,934	20	41	21	44
Tasmania ..	216	885	292	1,196	4	16	3	12
Australia ..	28,729	3,954	12,453	1,714	351	48	195	27

(a) See explanation in para. 1.—(1).

Comparative figures of the number of articles dealt with during 1942-43 may be found in the *Transport and Communication Bulletin* No. 35, pp. 49-51.

2. *Value-Payable Parcel Post.*—(i) *General.* The Postal Department undertakes to deliver registered articles sent by parcel post within Australia, or between Papua or Nauru and Australia, to recover from the addressee on delivery a specified sum of money fixed by the sender, and to remit the sum to the sender by money order, for which the usual commission is charged. The object of the system is to meet the requirements of persons who wish to pay at the time of receipt for articles sent to them, also to meet the requirements of traders and others who do not wish their goods to be delivered except on payment.

(ii) *Summary of Business.* The next statement gives particulars regarding the value-payable parcels posted in each State for the years 1940-41 to 1943-44 in comparison with 1938-39 :—

VALUE-PAYABLE PARCEL POST : SUMMARY OF BUSINESS.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
NUMBER OF PARCELS POSTED.							
	No.	No.	No.	No.	No.	No.	No.
1938-39 ..	332,419	36,000	175,376	20,596	67,852	849	633,092
1940-41 ..	361,388	103,459	186,524	23,912	59,273	866	735,422
1941-42 ..	398,459	104,828	184,843	25,014	55,746	1,090	769,980
1942-43 ..	325,967	80,241	148,600	24,000	39,900	1,363	620,071
1943-44 ..	359,500	79,100	147,200	28,400	36,400	1,300	651,900

VALUE COLLECTED.							
	£	£	£	£	£	£	£
1938-39 ..	405,844	50,224	226,409	22,962	76,323	1,143	782,905
1940-41 ..	486,927	172,183	249,323	31,893	70,017	1,411	1,011,754
1941-42 ..	515,672	180,248	262,586	37,463	68,161	2,165	1,066,295
1942-43 ..	464,996	147,796	195,351	32,070	45,458	2,636	888,307
1943-44 ..	518,268	154,896	223,106	44,849	48,645	2,351	992,115

REVENUE INCLUDING POSTAGE, COMMISSION ON VALUE, REGISTRATION AND MONEY ORDER COMMISSION.

	£	£	£	£	£	£	£
1938-39 ..	45,097	4,867	24,881	2,587	8,207	102	85,741
1940-41 ..	49,182	16,922	25,680	3,133	6,715	104	101,736
1941-42 ..	53,027	16,591	24,961	3,628	6,480	137	104,824
1942-43 ..	41,476	12,841	19,048	2,426	4,541	161	80,493
1943-44 ..	49,283	13,575	19,135	4,566	4,225	151	90,935

The number and value of parcels forwarded in New South Wales and Queensland are much higher than in any of the other States, although the system has also found favour in Western Australia. These three States have the largest areas, and consequently more people, at long distances from business centres, avail themselves of the value-payable system. Although South Australia also has a large area, the population of that State is, comparatively, not widely spread.

3. *Sea-borne Mail Services.*—(i) *General.* In earlier issues of this work particulars of sea-borne mail services were included, but owing to the restrictions of space the insertion of the information terminated with Official Year Book No. 22.

(ii) *Annual Subsidies or Payments.* The following table shows particulars of the annual subsidies or amounts payable by the Postal Department for coastal mail services in accordance with contracts in existence at 30th June, 1944. The frequency of the services concerned was irregular during 1943-44.

MAIL SUBSIDIES : COASTAL SERVICES, 1943-44.

Service.	Queensland Ports.	South Australian Ports.	Western Australian Ports.	Tasmanian Ports.
	£	£	£	£
Annual subsidies or payments	875	5,000	5,500	54,379

4. **Total Cost of Carriage of Mails.**—During 1942-43 and 1943-44 the total amounts paid for the carriage of mails, as disclosed by the Profit and Loss Account of the Postal Branch, were £2,230,767 and £2,930,940 respectively. Details appear hereunder :—

CARRIAGE OF MAILS : TOTAL COST, 1942-43 AND 1943-44.

Year.	Inland Mails.			Coastwise Mails.	Overseas Mails.		Tasmanian Subsidy.	Total.
	Road.	Railway.	Air.		Sea.	Air.		
	£	£	£	£	£	£	£	£
1942-43	645,686	587,532	769,130	8,732	59,330	144,447	15,910	2,230,767
1943-44	707,532	714,361	1,322,814	14,280	103,557	55,408	12,988	2,930,940

5. **Transactions of the Dead Letter Offices.**—The table hereunder shows the number of letters, postcards and letter-cards, and packets and circulars, including Inland, Interstate and International, dealt with by the Dead Letter Offices in 1943-44, and the methods adopted in the disposal thereof :—

DEAD LETTER OFFICES : TRANSACTIONS, 1943-44.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
LETTERS, POSTCARDS AND LETTER-CARDS.							
Returned to writers or delivered ..	No. 684,467	No. 341,266	No. 461,902	No. 100,739	No. 85,130	No. 77,244	No. 1,750,748
Destroyed in accordance with Act ..	133,825	53,061	27,774	13,653	9,875	5,928	244,116
Returned to other States or Countries as unclaimed ..	23,450	13,075	8,385	1,403	3,014	3,084	52,411
Total ..	841,742	407,402	498,061	115,795	98,019	86,256	2,047,275

PACKETS AND CIRCULARS.

Returned to writers or delivered ..	83,996	61,734	205,339	2,955	239	18,020	372,283
Destroyed in accordance with Act ..	23,683	35,123	14,657	2,072	191	4,726	80,452
Returned to other States or Countries as unclaimed ..	1,710	1,282	2,385	664	70	108	6,219
Total ..	109,389	98,139	222,381	5,691	500	22,854	458,954
Grand Total (letters, packets, etc.) ..	951,131	505,541	720,442	121,486	98,519	109,110	2,506,229

Particulars of dead letter office transactions for 1942-43 may be found in the *Transport and Communication Bulletin*, No. 34, p. 48.

During 1942-43 and 1943-44 money and valuables to the amount of £147,203 and £140,527 respectively were found in postal articles sent to the Dead Letter Office.

6. **Money Orders and Postal Notes.**—(i) *General.* The issue of money orders and postal notes is regulated by Sections 74-79 of the Post and Telegraph Act 1901. A money order may be issued for payment of sums up to £20 within Australia, and not

exceeding £40 (in some cases £20, and in Mauritius £10) in places abroad. A postal note, which is payable only within Australia and in Papua, cannot be issued for a larger sum than twenty shillings.

(ii) *States, 1943-44.* Particulars regarding the business transactions in each State for 1943-44 are given hereunder :—

MONEY ORDERS AND POSTAL NOTES : TRANSACTIONS, 1943-44.

State.	Value of Money Orders Issued.	Value of Money Orders Paid.	Net Money Order Commission Received.	Value of Postal Notes Issued.	Poundage Received on Postal Notes.
	£	£	£	£	£
New South Wales ..	13,671,860	14,272,225	54,313	3,496,340	74,167
Victoria ..	6,480,206	7,005,924	26,130	2,344,864	54,815
Queensland ..	5,293,154	4,425,875	24,973	2,053,994	19,162
South Australia ..	1,721,364	1,599,797	8,464	872,533	12,803
Western Australia ..	1,814,219	1,767,070	9,498	473,793	9,777
Tasmania ..	964,357	916,374	4,029	190,526	4,740
Australia ..	29,945,160	29,987,265	127,407	9,432,050	175,464

(iii) *Australia, 1938-39 to 1943-44.* The next table shows the number and value of money orders and postal notes issued and paid in Australia in each of the years 1940-41 to 1943-44 compared with 1938-39 :—

MONEY ORDERS AND POSTAL NOTES : TRANSACTIONS, AUSTRALIA.

Year.	Money Orders.				Postal Notes.			
	Issued.		Paid.		Issued.		Paid.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
	'000.	£'000.	'000.	£'000.	'000.	£'000.	'000.	£'000.
1938-39 ..	3,239	18,349	3,254	18,548	21,942	7,926	21,966	7,934
1940-41 ..	3,421	20,229	3,373	20,271	21,087	7,926	21,087	7,917
1941-42 ..	3,678	24,168	3,656	24,265	21,431	8,380	21,129	8,253
1942-43 ..	3,798	27,712	3,802	27,744	21,263	8,936	20,982	8,778
1943-44 ..	3,609	29,945	3,627	29,987	21,865	9,432	21,793	9,453

(iv) *Classification of Money Orders Issued and Paid.* (a) *Money Orders Issued.* The next table shows the number and value of money orders issued during 1942-43 and 1943-44, classified according to the country where payable :—

MONEY ORDERS ISSUED : COUNTRY WHERE PAYABLE, 1942-43 AND 1943-44.

Where Issued.	Where Payable.				Total.	
	Australia.	New Zealand.	United Kingdom.	Other Countries.		
1942-43.						
Australia ..	No.	3,747,226	11,839	28,973	9,539	3,797,577
	Value £	27,598,378	25,064	61,256	26,980	27,711,678
1943-44.						
Australia ..	No.	3,554,494	13,009	30,699	10,761	3,608,963
	Value £	29,818,283	28,979	68,240	29,658	29,945,160

(b) *Money Orders Paid.* The number and value of money orders paid during 1942-43 and 1943-44, classified according to the country where issued, are given hereunder:—

MONEY ORDERS PAID : COUNTRY OF ISSUE, 1942-43 AND 1943-44.

Where Paid.		Where Issued.				Total.
		Australia.	New Zealand.	United Kingdom.	Other Countries.	
1942-43.						
Australia ..	No.	3,756,817	19,897	16,210	9,536	3,802,460
	Value £	27,583,661	42,635	84,003	34,105	27,744,404
1943-44.						
Australia ..	No.	3,580,269	18,078	17,801	11,074	3,627,222
	Value £	29,786,919	39,194	110,909	50,243	29,987,265

In the tables above, money orders payable or issued in foreign countries which have been sent from or to Australia through the General Post Office in London are included in those payable or issued in the United Kingdom.

(v) *Postal Notes Paid.* The following table shows the number and value of postal notes paid in each State during 1942-43 and 1943-44. Particulars regarding the number and value of postal notes issued and paid in each of the last five years have been given in an earlier table.

POSTAL NOTES PAID : STATE OF ISSUE, 1942-43 AND 1943-44.

Postal Notes Paid in—

	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
1942-43.							
Same State No. '000	7,580	3,920	1,936	941	972	414	15,763
Value £'000	3,202	1,595	854	398	391	153	6,593
Other States No. '000	1,202	839	499	183	219	2,277	5,219
Value £'000	635	447	212	101	82	708	2,185
Total No. '000	8,782	4,759	2,435	1,124	1,191	2,691	20,982
Value £'000	3,837	2,042	1,066	499	473	861	8,778
1943-44.							
Same State No. '000	7,215	3,597	2,048	918	889	406	15,073
Value £'000	3,035	1,467	945	396	362	146	6,351
Other States No. '000	1,568	1,055	554	217	300	3,026	6,720
Value £'000	941	691	249	136	126	959	3,102
Total No. '000	8,783	4,652	2,602	1,135	1,189	3,432	21,793
Value £'000	3,976	2,158	1,194	532	488	1,105	9,453

Compared with the previous year the number and value of postal notes paid in Australia during 1943-44 increased by 3.9 per cent. and 7.7 per cent. respectively.

§ 3. Telegraphs.

1. **General.**—A review of the development of the Telegraph Services in Australia appears in Official Year Book No. 15, p. 625. During the past few years substantial improvements in both the speed and grade of telegraph service throughout Australia have been effected, the entire system being subjected to intensive reorganization. Particulars of these improvements were shown in Official Year Book No. 34, p. 134.

2. **Telegraph Offices, Length of Lines and Wire.**—(i) *States.* The following table shows the latest figures available separately for telegraph offices and the length of telegraph lines and of telegraph wire in each State. Where separate figures as at 30th June, 1944, are not available, combined telegraph and telephone figures are shown in § 5, 1 (i) following.

TELEGRAPH OFFICES AND LINES : STATES.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of offices(a)	3,071	2,468	1,671	855	920	536	9,521
Length of wire (single wire mileage)(b)—							
Telegraph purposes only	12,237	7,615	14,774	6,377	8,485	641	50,129
Telegraph and telephone purposes	63,223	19,121	37,072	13,057	10,071	1,448	143,992
Length of line (single wire mileage)(b)—							
Conductors in Morse cable	2,792	1,417	490	..	181	24	4,904
Conductors in submarine cable	4,937	422	339	226	193	624	6,741
Pole routes (miles)(a)	34,039	19,099	15,146	14,507	12,523	3,545	98,854

(a) At 30th June, 1944.

(b) At 30th June, 1940.

At 30th June, 1940, a total length of 194,121 miles of wire was available for telegraph purposes, of which 143,992 miles was also used for telephone purposes.

(ii) *Summary for Australia.* The following table gives summary particulars for Australia as at 30th June, 1939, 1941 to 1944 :—

TELEGRAPH OFFICES AND LINES : AUSTRALIA, AT 30th JUNE.

Particulars.	1939.	1941.	1942.	1943.	1944.
Number of offices	9,389	9,484	9,479	9,515	9,521
Length of wire (single wire mileage)—					
Telegraph purposes only	50,558	(a)	(a)	(a)	(a)
Telegraph and telephone purposes ..	141,360	(a)	(a)	(a)	(a)
Length of line (single wire mileage)—					
Conductors in Morse cable	4,816	(a)	(a)	(a)	(a)
Conductors in submarine cable	5,747	(a)	(a)	(a)	(a)
Pole routes (miles)	97,311	98,043	97,585	98,158	98,859

(a) Separate particulars not available.

3. Number of Telegrams Dispatched.—(i) *States*. The following table shows the number of telegrams dispatched in each State during 1943-44 according to the class of message transmitted :—

TELEGRAMS DISPATCHED(a) : STATES, 1943-44.

Class of Message Transmitted within Australia.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	No.	No.	No.	No.	No.	No.	No.
Paid and Collect—							
Ordinary ..	9,049,914	6,875,287	5,800,755	2,224,022	2,695,161	522,211	27,167,350
Urgent ..	1,021,402	420,511	871,892	182,419	191,513	27,167	2,714,904
Press ..	131,955	33,537	52,416	13,144	37,526	29,291	297,869
Lettergram ..	38,555	19,139	23,001	11,468	29,824	6,654	128,641
Radiogram ..	8,100	1,046	17,664	12,573	14,865	2,920	57,168
Total ..	10,249,926	7,349,520	6,765,728	2,443,626	2,968,889	588,243	30,365,932
Unpaid—							
Service ..	198,155	108,496	107,761	44,205	56,471	22,762	537,850
Meteorological	630,514	391,070	565,405	367,008	374,607	124,731	2,453,335
Total ..	828,669	499,566	673,166	411,213	431,078	147,493	2,991,185
Grand Total	11,078,595	7,849,086	7,438,894	2,854,839	3,399,967	735,736	33,357,117

(a) Includes radiogram traffic with islands adjacent to Australia and to ships at sea.

A comparative table for the year 1942-43 may be found in the *Transport and Communication Bulletin* No. 34, p. 51.

(ii) *Australia*. The number of telegrams dispatched to destinations within Australia during each of the last six years is given hereunder :—

TELEGRAMS DISPATCHED : AUSTRALIA.

Telegrams.	1938-39.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.
Number(a) ..	17,251,759	17,645,964	19,457,130	23,662,121	29,569,535	33,357,117

(a) See Note (a) above.

The volume of telegraph business has increased by over 93 per cent. during the past five years.

§ 4. Oversea Cable and Radio Communication.

1. *First Cable Communication with the Old World*.—In earlier issues of the *Official Year Book* will be found a detailed account of the connexion of Australia with the Old World by means of submarine cables. (See No. 6, p. 770.)

2. *General Cable Service*.—Descriptions of the various cable services between Australia and other countries are given in *Official Year Book* No. 22, pp. 335-6.

3. *Merging of Cable and Wireless Interests*.—Following upon the recommendations of the Imperial Wireless and Cable Conference in London in 1928 which examined the situation that had arisen as the result of the competition of the Beam wireless with the cable services, the Imperial and International Communications Limited (since renamed

Cable and Wireless Ltd.) was formed and took over the operations of the Pacific Cable Board and the control of the Eastern Extension Cable Company and the Marconi Wireless Company.

4. **Oversea Cable and Radio Traffic.**—(i) *States.* The number of telegrams received from and dispatched overseas in each State during 1943-44 is given hereunder :—

INTERNATIONAL TELEGRAMS : STATES, 1943-44.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number received ..	665,648	276,147	58,988	41,856	47,444	8,523	1,098,606
„ dispatched	507,518	307,491	378,897	60,090	91,720	17,872	1,363,588
Total ..	1,173,166	583,638	437,885	101,946	139,164	26,395	2,462,194

(ii) *Australia.* The following table shows the number of international telegrams received from and dispatched overseas in Australia during the years 1938-39 to 1943-44 :—

INTERNATIONAL TELEGRAMS.—AUSTRALIA.

Particulars.	1938-39.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.
Number received ..	716,007	710,422	872,813	1,146,183	1,281,792	1,098,606
„ dispatched ..	745,754	709,622	854,462	1,328,732	1,682,940	1,363,588
Total ..	1,461,761	1,420,044	1,727,275	2,474,915	2,964,732	2,462,194

5. **Cable and Beam Wireless Rates.**—Particulars of the various types of international telegrams available for general use prior to the war, and rates applicable thereto, may be found in Official Year Book No. 34, p. 139.

§ 5. Telephones.

1. **Telephone Services.**—(i) *Mileage in Australia.* The following table shows the mileage of lines for telephone purposes, giving trunk lines separately, at 30th June, in each of the years 1941 to 1944 compared with 1939 :—

TELEPHONE LINES : AUSTRALIA AT 30th JUNE.

Particulars.	1939.	1941.	1942.	1943.	1944.
Ordinary Lines—					
Conduits (duct miles) ..	10,817	12,973	13,828	14,450	15,026
Conductors in aerial and underground cables and working conductors in cables for junction circuits (single wire mileage)	2,172,810	2,445,466	2,584,014	2,734,734	2,846,048
Open conductors (single wire mileage) ..	434,932	434,935	444,670	450,842	458,062
Trunk Lines—					
Telephone, trunk and/or Telegraph purposes (single wire mileage)	362,047	414,092	416,941	428,075	431,921

(ii) *Comparison with Other Countries.* During 1943-44 the total number of telephones added to the Post office system was 32,883 compared with 28,180 in 1942-43. With an average of 110 telephones per 1,000 of population, Australia continues to hold a high place amongst the countries of the world in respect of telephone density. The average length of wire per instrument in Australia is over 3½ miles. In February, 1942, restrictions were introduced on the provision of telephone facilities, unless required by the fighting services, organizations concerned actively with public defence, security or welfare, or persons engaged in the production and distribution of vital foodstuffs.

(iii) *Summary for States.* Particulars relating to the telephone service in each State for the years ended 30th June, 1943 and 1944, compared with 1939 will be found in the following table:—

TELEPHONE SERVICES : SUMMARY.

Particulars.	Year (30th June).	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
		No.	No.	No.	No.	No.	No.	No.
Exchanges ..	1939	2,010	1,680	1,053	579	653	358	6,333
	1943	2,014	1,672	1,100	586	644	355	6,371
	1944	2,019	1,671	1,087	584	640	349	6,350
Telephone Offices (in- cluding Exchanges)	1939	3,040	2,358	1,517	829	907	509	9,160
	1943	3,050	2,424	1,574	854	922	505	9,329
	1944	3,058	2,407	1,570	855	919	505	9,314
Lines connected ..	1939	189,915	150,570	61,650	45,224	26,032	14,144	487,535
	1943	210,112	170,780	66,655	49,152	27,860	15,702	540,261
	1944	217,345	175,526	69,422	50,161	28,512	16,106	557,072
Instruments con- nected	1939	257,246	208,230	82,226	60,451	35,830	18,013	661,996
	1943	295,266	246,507	95,601	68,413	40,369	20,690	766,846
	1944	308,016	254,861	103,734	70,255	41,659	21,204	799,729
(i) Subscribers' in- struments	1939	250,511	203,668	79,293	58,512	34,380	17,098	643,462
	1943	287,141	240,777	92,007	66,210	38,633	19,731	744,499
	1944	299,761	249,052	99,962	68,025	39,870	20,235	776,905
(ii) Public tele- phones	1939	4,223	2,573	1,775	1,017	926	562	11,076
	1943	4,885	3,059	2,046	1,087	924	552	12,553
	1944	4,986	3,056	2,105	1,100	942	549	12,738
(iii) Other local in- struments	1939	2,512	1,989	1,158	922	524	353	7,458
	1943	3,240	2,671	1,548	1,116	812	407	9,794
	1944	3,269	2,753	1,667	1,130	847	420	10,086
Instruments per 100 of population	1939	9.32	11.07	8.09	10.04	7.70	7.61	9.51
	1943	10.29	12.44	9.13	10.99	8.62	8.57	10.60
	1944	10.74	12.81	9.80	11.26	8.63	8.69	11.01
Earnings ..		£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
	1939	3,371	2,409	1,136	709	450	209	8,284
	1943	4,443	3,306	1,532	979	636	294	11,190
	1944	4,842	3,525	1,759	1,012	670	306	12,114
Working expenses ..	1939	2,119	1,488	691	543	365	204	5,410
	1943	2,750	2,140	978	633	474	233	7,208
	1944	2,820	2,143	1,134	693	477	256	7,523
Percentage of working expenses on earn- ings		%	%	%	%	%	%	%
	1939	62.87	61.75	60.80	76.58	81.13	97.94	65.31
	1943	61.89	64.73	63.84	64.66	74.53	79.25	64.41
	1944	58.24	60.79	64.47	68.48	71.19	83.66	62.10

Of the total telephones (799,729) in service on 30th June, 1944, 286,784 or 35.9 per cent. were connected to exchanges situated beyond the limits of the metropolitan telephone networks. The number of telephone offices, including exchanges, decreased by 15 during the year 1943-44, bringing the total in Australia to 9,314.

(iv) *Subscribers' Lines and Calling-rates.* The next table gives the number of subscribers' lines and daily calling-rate at central, suburban and country telephone exchanges in the several States for 1943-44 :—

TELEPHONES : SUBSCRIBERS' LINES AND DAILY CALLING-RATE, 1943-44.

State.	Central Exchanges.		Suburban Exchanges.		Country Exchanges.	
	Subscribers' Lines.	Average Outward Calls Daily per line.	Subscribers' Lines.	Average Outward Calls Daily per line.	Subscribers' Lines.	Average Outward Calls Daily per line.
	No.	No.	No.	No.	No.	No.
New South Wales ..	22,844	11.04	119,875	4.42	74,626	2.60
Victoria ..	13,421	9.87	102,914	3.75	54,415	1.82
Queensland ..	9,236	10.79	22,141	4.23	33,739	3.12
South Australia ..	6,408	8.91	22,988	2.93	18,448	1.74
Western Australia ..	6,643	7.60	10,414	4.22	9,412	2.01
Tasmania ..	3,734	4.81	2,275	2.45	8,970	2.24

Similar information for the year 1942-43 may be found in the *Transport and Communication Bulletin* No. 34, p. 55.

A comparison of the average daily calling-rates for each class of exchange shows that New South Wales registered the greatest number of calls per line at central and suburban exchanges and Queensland at country exchanges.

(v) *Effective Paid Local Calls.* The numbers of effective paid local calls from subscribers and public telephones in the various States during the years ended 30th June, 1943 and 1944, appear hereunder :—

TELEPHONES : NUMBER OF EFFECTIVE PAID LOCAL CALLS.

State.	Subscribers' Calls.		Calls from Public Telephones.		Total Calls.	
	1942-43.	1943-44.	1942-43.	1943-44.	1942-43.	1943-44.
	'000.	'000.	'000.	'000.	'000.	'000.
New South Wales ..	232,693	241,086	30,454	34,702	263,147	275,788
Victoria ..	181,037	180,058	17,403	18,592	198,440	198,650
Queensland ..	69,113	76,703	8,395	10,145	77,508	86,848
South Australia ..	45,722	45,710	5,879	6,202	51,601	51,912
Western Australia ..	32,024	33,026	2,933	3,341	34,957	36,367
Tasmania ..	12,204	12,697	1,494	1,557	13,698	14,254
Australia ..	572,793	589,280	66,558	74,539	639,351	663,819

(vi) *Trunk Line Calls and Revenue.* In the next table the number of telephone trunk line calls recorded, the amount of revenue received, and the average revenue per call are shown for each of the States for the years 1942-43 and 1943-44 compared with 1938-39.

TELEPHONES : TRUNK LINE CALLS AND REVENUE.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Total Calls—	'000.	'000.	'000.	'000.	'000.	'000.	'000.
1938-39 ..	14,401	11,198	7,306	4,166	2,311	1,770	41,152
1942-43 ..	16,452	13,643	8,412	4,660	2,551	2,258	47,976
1943-44 ..	17,486	14,877	9,121	4,994	2,695	2,436	51,609
Total Revenue—	£	£	£	£	£	£	£
1938-39 ..	739,472	529,190	412,811	196,780	126,141	73,634	2,078,028
1942-43 ..	1,063,486	777,445	521,376	301,644	184,739	108,989	2,957,679
1943-44 ..	1,141,139	855,392	574,659	343,465	197,112	118,290	3,230,057
Average Revenue per call—	d.	d.	d.	d.	d.	d.	d.
1938-39 ..	12.32	11.34	13.56	11.34	13.09	9.98	12.12
1942-43 ..	15.51	14.00	14.87	13.53	17.38	11.58	14.80
1943-44 ..	15.66	13.80	15.12	16.50	17.55	11.65	15.02

The number of trunk line calls during 1943-44 increased by more than $3\frac{1}{2}$ millions, or 7.57 per cent., compared with the figures for the previous year, whilst the average revenue per call increased slightly.

2. *Revenue from Telephones.*—Particulars regarding the revenue from telephone services are included in tables in § 1.

§ 6. Radio Telegraphy and Telephony.

1. *General.*—A statement in regard to the initial steps taken to establish radio telegraphy in Australia appears in Official Year Book No. 18, p. 343.

2. *Wireless Licences.*—(i) *General.* Particulars of the various types of licences appear in Official Year Book No. 34, p. 143.

The following table shows the number of each class of licence in force in each State and Territory as at 30th June, 1944 :—

NUMBER OF WIRELESS LICENCES : 30th JUNE, 1944.

Station Licence.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Coast ..	1	1	6	1	5	3	1	..	18
Ship ..	64	78	10	7	1	..	..	..	160
Aircraft ..	11	11	7	4	2	..	..	..	35
Land ..	30	3	92	51	82	9	62	2	331
Broadcasting—									
National ..	7	6	7	3	5	3	..	1	32
Commercial	33	19	19	8	10	8	..	1	98
Broadcast Listeners' ..	557,302	409,325	180,090	155,046	99,246	50,356	207	2,730	1,454,302
Experimental ..	..	..	..	..	..	..	..	..	..
Portable ..	9	..	5	4	3	..	6	..	27
Special ..	119	247	29	14	44	5	1	1	460
Total Issued	557,576	409,690	180,265	155,138	99,398	50,384	277	2,735	1,455,463

(ii) *Broadcast Listeners*'. The striking development of the use of the radio in Australia is illustrated by the following table, which gives the number of broadcast listeners' licences in force at 30th June, 1925, 1930, 1935 and 1938 to 1944 :—

NUMBER OF BROADCAST LISTENERS' LICENCES.

In force at 30th June—	N.S.W. (a)	Victoria.	Q'land. (b)	S. Aust. (c)	W. Aust.	Tas.	Australia.
1925 ..	33,719	19,243	1,061	3,118	3,417	501	61,059
1930 ..	111,080	139,887	23,263	25,671	5,715	6,032	311,648
1935 ..	278,648	236,886	67,369	76,365	41,176	20,088	720,532
1938 ..	403,978	315,406	117,496	111,787	71,324	36,013	1,056,004
1939 ..	433,029	327,579	133,217	117,307	79,262	39,392	1,129,786
1940 ..	458,155	348,158	151,110	124,891	87,764	42,182	1,212,260
1941 ..	494,884	362,790	168,216	131,292	91,368	44,716	1,293,266
1942 ..	500,451	371,502	172,527	137,244	91,945	46,404	1,320,073
1943 ..	552,044	390,950	177,846	151,258	97,785	49,910	1,419,793
1944 ..	560,032	409,325	180,090	155,253	99,246	50,356	1,454,302

(a) Includes Australian Capital Territory.
Territory.

(b) Includes Papua.

(c) Includes Northern

3. *Broadcasting*.—(i) *The National Broadcasting Service*. The technical services for the National Broadcasting Service are provided by the Postmaster-General's Department, and the programme by the Australian Broadcasting Commission, a body consisting of five members, constituted under the provisions of the Australian Broadcasting Commission Act. The fee for a broadcast listeners' licence is 20s. per annum for a receiver situated approximately within 250 miles from a station of the National Service, and 14s. per annum in the area beyond. Licences at half the ordinary fee are granted to pensioners and also in respect of each receiver, in excess of one, in the possession of a listener. Licences are granted free of charge to blind persons over the age of sixteen years and to schools with an enrolment of less than fifty pupils. In September, 1940, the Commission's proportion of the licence fee was reduced from 12s. to 10s. In July, 1942, it was increased to 11s. and in February, 1944, the Parliamentary Standing Committee on Broadcasting recommended the restoration of the second shilling. No legislative action has been taken but the Government made available to the Commission a special appropriation equivalent to one shilling per licence limited to a period of one year only.

The National Broadcasting System of Australia at 30th June, 1945, comprised 35 transmitting stations as follows :—

Medium-wave Stations—

New South Wales—

- 2FC and 2BL Sydney.
- 2NA Newcastle.
- 2NC Hunter River Regional (Newcastle).
- 2CO Riverina Regional (Corowa).
- 2NR Northern Rivers Regional (Lawrence).
- 2CR Central Regional (Cumnock).
- 2CY Canberra.

Victoria—

- 3LO and 3AR Melbourne.
- 3GI Gippsland Regional (Longford).
- 3WV Western Regional (Dee).

Queensland—

- 4QG and 4QR Brisbane.

Queensland—continued—

- 4QN Northern Regional (Cleveland).
 - 4RK Rockhampton Regional (Rockhampton).
 - 4QS South Western Regional (Dalby).
 - 4AT Atherton
- South Australia—*
- 5CL and 5AN Adelaide.
 - 5CK North Regional (Crystal Brook).

Western Australia—

- 6WF and 6WN Perth.
- 6WA South West Regional (Minding).
- 6GF Goldfields (Kalgoorlie).
- 6GN Geraldton.

Tasmania—

- 7ZL and 7ZR Hobart.
- 7NT North Regional (Kelso).

Short-wave Stations—

VLG, VLH and VLR Lynd-
hurst, Victoria.
VLC Shepparton, Victoria.

VLQ Brisbane, Queensland.
VLW Perth, Western Australia.

Following representations by the Commonwealth Government on behalf of the Australian and Allied Army authorities a medium wave station, 9PA Port Moresby, came into operation in February, 1944, to serve the forces in New Guinea. The Australian Broadcasting Commission provided the programme and programme staff and the Postmaster-General's Department the technical services.

(ii) *Commercial Broadcasting Stations.* The services of other broadcasting stations are conducted by private enterprise under licence from the Postmaster-General. Licences are granted on conditions which ensure satisfactory alternative programmes for listeners. The fee for a broadcasting station licence is £25 and the maximum period of a licence is three years, although they may be renewed annually at the discretion of the Postmaster-General. Licensees of these stations do not share in the listeners' licence fees, but rely for their income on revenue received from the broadcasting of advertisements and other publicity. The number of these stations in operation at 30th June, 1944, was 98.

4. *Overseas Communication by Wireless.*—(i) *Beam Wireless.* The Beam Wireless stations provided for under the agreement between the Commonwealth Government and Amalgamated Wireless (Australasia) Ltd. were completed early in 1927, and a direct beam wireless service to England was established on 8th April, 1927. A similar service to North America was opened on 16th June, 1928. Particulars of international traffic via "Beam" are given in par. (iii) (a) following.

(ii) *Wireless Communication in the Pacific.* Prior to the outbreak of war with Japan, New Zealand, the territories of New Guinea and Papua and the various small islands in the Pacific Ocean were served by a comprehensive system of wireless communication. Particulars of the island traffic appear in par. (iii) (b) and (c) following.

(iii) *Radiotelegraphic Traffic.* (a) *International.* The following statement shows particulars of international traffic "via Beam" to and from United Kingdom and other places during the years ended 30th June, 1943 and 1944 :—

RADIO TRAFFIC : INTERNATIONAL, 1942-43 AND 1943-44.

Class of Traffic.	Number of Words Transmitted to—			Number of Words Received from—		
	United Kingdom.	Other Places.	Total.	United Kingdom.	Other Places.	Total.
Ordinary (a) ..	399,934	365,118	765,052	435,307	315,000	750,307
Deferred ordinary ..	1,197,772	793,617	1,991,389	1,435,134	656,788	2,091,922
Government (a) ..	36,277	75,168	111,445	773,006	436,881	1,209,887
Press (including deferred press) ..	2,028,843	2,851,595	4,880,438	9,463,302	4,441,847	13,905,149
Daily letter and greeting telegrams ..	1,907,341	2,144,385	4,051,726	2,954,366	1,940,726	4,895,092
E.F.M.(b) ..	160,574	2,467,421	2,627,995	37,188	1,124,896	1,162,084
Total 1943-44 ..	5,730,741	8,697,304	14,428,045	15,098,303	8,916,138	24,014,441
1942-43 ..	7,034,095	9,890,376	16,924,471	13,232,321	7,886,639	21,118,960

(a) Includes code telegrams. (b) Special telegrams, usually in standard phrases, for transmission to and from members of the Defence Services abroad.

A comparative table of the class of traffic transmitted during 1942-43 may be found in the *Transport and Communication Bulletin* No. 34, p. 56.

(b) *Coast Stations.* Particulars of the traffic handled by the several coast stations during 1943-44 are as follows :—

RADIO TRAFFIC : COAST STATIONS, 1943-44.

State or Territory.	Particulars.				
	Total Paying Words.	Messages.			
		Paying.	Service.	Weather.	Total.
	No.	No.	No.	No.	No.
New South Wales	4,725,578	86,206	3,865	..	90,071
Victoria	23,791	1,197	548	..	1,745
Queensland	69,595	2,430	986	9,291	12,707
South Australia	1,959	51	1,225	..	1,276
Western Australia	14,788	536	2,624	..	3,160
Tasmania	84,100	4,673	644	..	5,317
Northern Territory	56,410	3,049	163	12,188	15,400
Australia	4,976,221	98,142	10,955	21,479	129,676
Papua and New Guinea	6,184,574	80,173	1,027	..	81,200
Grand Total	11,160,795	178,315	11,082	21,479	210,876

During 1942-43 traffic handled in Papua and New Guinea was as follows :—Total Paying words, 3,496,263 ; Messages—Paying, 68,699, Service, 1,922, Total Messages, 70,621. Comparative figures for each State of Australia during 1942-43 may be found in *Transport and Communication Bulletin* No. 34, p. 56.

(c) *Island Stations.* Particulars of the island radio traffic dealt with during 1941-42 are given in the following table. Later particulars are not available owing to the suspension of this service.

RADIO TRAFFIC : ISLAND STATIONS, 1941-42.

Particulars.			To Australia.	From Australia.	Inter- Island.	Shp.	Total.
			No.	No.	No.	No.	No.
Messages .. ..	..	..	5,913	5,841	13,376	3	25,133
Words .. ..	..	..	167,815	226,089	210,425	57	604,386

CHAPTER VI.

EDUCATION.

§ 1. General.

1. **Evolution of Educational Systems of the States.**—As the first settlement in Australia was in New South Wales, it was but natural that Australian education should have had its beginning in that State, and consequently the mother State has played a leading part in the evolution of educational method and system in Australia. The subject is dealt with in some detail in the first two issues of the Official Year Book, which also contain a more or less detailed account of the origin and earlier development of the educational systems of the other States.

2. **Later Development in State Educational Systems.**—Issues of the Official Year Book up to No. 22 contain an outline of later developments of the educational systems of the various States. The educational systems of the States may now be considered as more or less homogeneous entities, the various stages succeeding one another by logical gradation from kindergarten to university.

3. **School Age.**—The statutory school age for children in each State, set out briefly, is as follows:—New South Wales, 6 to 15 years; Victoria, 6 to 14 years; Queensland, 6 to 14 years; South Australia, 6 to 14 years; Western Australia, 6 to 14 years; and Tasmania, 6 to 16 years. In New South Wales the statutory school age was from 7 to 14 years during 1917 to 1939; from 6 to 14 years in 1940; from 6 to 14 years 4 months in 1941; from 6 to 14 years 8 months in 1942; and from 6 to 15 years in 1943. In Tasmania the statutory school age was from 7 to 14 years, but legislation passed in 1943 reduced the lower age limit to 6 years. In 1942 the school leaving age was increased to 16 years but was not to operate till after the war. This provision has now been proclaimed to operate from 1st February, 1946.

It is provided in some States that in cases where any child is living outside stated distances from a State school, the age at which the child must commence school is increased. Provision is also made that a scholar having attained a certain standard may leave school before reaching the statutory leaving age.

At the 1936 Conference of Directors of Education a resolution was passed urging the necessity of raising the compulsory school leaving age to 15 years. This resolution was submitted to a conference in Sydney of Ministers of Education who agreed to recommend to their respective Governments legislation to implement the proposal by the year 1940, but owing to war conditions its operation has been postponed. Legislation was passed in 1943 in Victoria and Western Australia increasing the school leaving age to 15 years, but neither of these provisions had been proclaimed at the end of December, 1945.

4. **Australian Council for Educational Research.**—This Council was constituted on 10th February, 1930, as the result of an endowment from the Carnegie Corporation of New York. The endowment terminated in December, 1942, by which time the total value in Australian currency of the annual payments had amounted to £120,000. Australian support so far received consists of grants from the Commonwealth Government totalling £6,000 and payments from two of the States amounting to about £400.

The Council consists of nine members of whom six are elected by State Institutes for Educational Research established in each of the Australian States. The functions of the Council are to conduct surveys and inquiries in the educational field, to make grants to approved investigators, to act as a centre of information on educational developments both within Australia and overseas, to provide services of a technical character such as those connected with the assessment of knowledge and aptitude, and to provide training for research workers. In general, through the publication of reports and in other ways, the Council aims at improving the standards of education and at stimulating thought about educational problems. So far about 80 reports have been published, one of the latest being a comprehensive survey of the training of teachers in Australia. The Council is at present producing a series of about sixteen pamphlets on educational reconstruction under the general title "The Future of Education".

The Council is autonomous, but maintains close contact with educational authorities, with the Universities and with other educational bodies. Its present investigations

include a comparative survey into the courses of study and examinations for children between twelve and sixteen years, made at the request of the State Education Departments, and a study of the prediction of success of University students.

During the past three years the Council has been called upon for advice and service by the following Commonwealth departments :—Labour and National Service, Man Power, Post-War Reconstruction, Home Security, War Organization of Industry and Department of the Army. The services have included such matters as the preparation of pamphlets, advice on psychological and educational matters, the preparation of tests to determine the suitability of individuals for special training, etc.

The head-quarters of the Council are at 147 Collins-street, Melbourne, C.I, Victoria.

§ 2. Census Records.

1. Persons Receiving Instruction.—The Census and Statistics Act 1905-1938 specifies "Education" as a subject for inquiry at a Census, but does not indicate the nature or range of the information to be furnished. At earlier Censuses an inquiry regarding the degree of education was restricted to a question as to ability to read and write, but under the system of compulsory education the number of persons in Australia who reach maturity without being able to read and write is very small, and this question was omitted at the 1933 Census. The only question asked concerned those receiving instruction at the time of the 1933 Census and related to the nature of the school they were attending. Details for each of the last three Censuses were as follows :—

PERSONS RECEIVING INSTRUCTION AT THE DATE OF THE CENSUS, 1911 TO 1933.

Receiving Instruction at—	Number.			Percentage.		
	1911.	1921.	1933.	1911.	1921.	1933.
				%	%	%
Government School ..	593,059	791,724	904,383	76.49	77.36	77.23
Private School ..	156,106	193,774	224,994	20.13	18.93	19.21
University ..	2,465	7,252	8,525	0.32	0.71	0.73
Home ..	23,760	30,712	33,126	3.06	3.00	2.83
Total ..	775,390	1,023,462	1,171,028	100.00	100.00	100.00

2. Ages of Scholars.—In the next table the number of scholars at specified ages in 1933 are shown together with the total number of persons recorded for those ages :—

SCHOOLING OF AUSTRALIAN POPULATION (SEXES COMBINED), 30th JUNE, 1933.

Age Last Birthday. (Years.)	Number Receiving Instruction at—				Number not stated and not at School.	Total.
	Government School.	Private School.	Home.	University.		
4	6,287	3,528	2,916	..	(a) 556,234	(a) 568,965
5	49,051	12,037	3,475	..	60,348	124,911
6	83,816	18,269	3,169	..	17,385	122,639
7	95,811	20,172	3,091	..	7,221	126,295
8	98,769	22,642	2,809	..	3,798	128,018
9	97,616	20,414	2,467	..	5,020	125,517
10	100,676	21,264	2,309	..	5,189	129,438
11	101,047	21,318	2,190	..	4,939	129,494
12	102,087	21,712	2,108	..	5,224	131,131
13	88,375	20,392	2,114	..	9,127	120,008
14	40,868	15,643	1,804	..	56,836	115,151
15	20,149	12,261	1,347	..	86,197	119,954
16	9,784	8,361	869	101	103,265	122,380
17	4,799	4,521	611	494	110,208	120,633
18	2,480	2,087	565	1,224	120,434	126,790
19	1,257	893	403	1,463	121,637	125,653
20 and over ..	1,511	1,480	879	5,243	4,183,749	4,192,862
Total ..	904,383	224,094	33,126	8,525	5,458,811	6,620,839

(a) Includes those aged under 3 years.

3. **Percentage of Persons not Receiving Instruction.**—The compulsory school age in the various States ranged from 6 to 14 years. From the foregoing table it will be seen that the proportion of children aged last birthday from 6 to 13 years receiving instruction was 94.1 per cent. Conversely 5.9 per cent. of the children within the compulsory range were not indicated as receiving instruction at the date of the Census. The corresponding ratio in 1921 was 6.7 per cent.

As the minimum compulsory school age in New South Wales and Tasmania at the date of the Census was 7 years, and as exemptions from further attendance for special reasons on attaining age 13 obtain throughout the States, a more reliable estimate of the percentage of children not receiving instruction may be obtained by ignoring the extreme ages of the compulsory range. The elimination of these ages reduces the percentage from 5.9 to 4.3 per cent. Attendance at school was known to be affected by the severe economic conditions prevailing at the time of the Census, and this latter figure was consequently in excess of the corresponding percentage of 3.7 in 1921. The effect of accessibility to schools may be seen in the further reduction of the percentages of these ages not receiving instruction in the metropolitan areas to 3.5 in 1933 and to 2.9 in 1921.

4. **Religions of Scholars.**—The following table shows the class of school at which the young adherents to the principal religious denominations were being educated at the date of the Census:—

**ADHERENTS RECEIVING INSTRUCTION AT DIFFERENT KINDS OF SCHOOLS,
30th JUNE, 1933.**

Denomination.	Government School.	Private School.	University.	Home.	Total Specified.
Baptist	17,473	998	166	304	18,941
Catholic, Roman(a) ..	84,763	146,197	1,339	6,263	238,562
Church of Christ	10,822	479	86	214	11,601
Church of England	397,717	37,442	3,263	14,612	453,034
Congregational	9,274	1,112	202	224	10,812
Lutheran	8,257	910	45	217	9,429
Methodist	116,365	5,926	1,023	2,723	126,037
Presbyterian	108,870	9,836	1,302	3,814	123,822
No Reply	119,130	18,415	646	3,805	141,996
Other	31,712	3,679	453	950	36,794
Total	904,383	224,994	8,525	33,126	1,171,028

(a) Including Catholic, Undefined.

The most prominent feature of the results given above is the relatively small proportion of Roman Catholics attending State schools. Of the Roman Catholics reported as receiving instruction, 34.66 per cent. were attending State schools compared with 86.84 per cent. for the rest of the community, the proportion for the whole being 77.23 per cent.

§ 3. State Schools.

1. **General.**—The State Schools, or, as they are sometimes termed, the “public” schools, of Australia comprise all schools directly under State control, in contradistinction to the so-called “private” schools, the bulk of which, though privately managed, nevertheless cater for all classes of the community. Separate information regarding technical education is given in § 8, but the junior technical schools

are included hereunder. The returns include figures relating to correspondence schools as well as subsidized schools, but evening schools and continuation classes, where such are in existence, are not included, but are dealt with separately in par. 3 (v) following.

2. Returns for Year 1943.—(i) *General.* The following table shows the number of State Schools, together with the teachers employed and the number of individual children in attendance during 1943 :—

STATE SCHOOLS, 1943.

State or Territory.	Schools at end of year.	Teachers Employed (excluding Teachers in Training).	Teachers in Training.	Net Enrolment.
		No.		
New South Wales(a)	2,750	11,228	959	365,930
Victoria	2,536	9,314	518	214,130
Queensland	1,548	4,198	240	133,849
South Australia	880	2,734	188	71,161
Western Australia	680	2,050	97	(b)55,827
Tasmania	369	1,230	145	33,345
Northern Territory(c)	3	6	..	198
Australia—1943	8,766	30,760	2,147	874,440
1942	9,040	30,627	2,125	868,252

(a) Includes Australian Capital Territory.
30th June, 1944.

(b) Average weekly enrolment.

(c) Year ended

(ii) *Average Enrolment and Attendance.* The methods of calculating enrolment are not identical throughout the States. The unit in South Australia is the daily enrolment while New South Wales, Victoria, Western Australia and Tasmania employ the weekly enrolment. In Queensland no average enrolment is compiled, and the mean of the four quarterly gross enrolments is the only figure available.

As with enrolments there is not complete uniformity in arriving at the average attendance, but most of the States aggregate the attendances for the year and divide by the number of school sessions. New South Wales and Western Australia, however, employ averages of term averages. The matter of securing uniformity in these respects has been under consideration for some time, and the Council for Educational Research, already referred to in § 1, par. 4, is devoting attention to the question of securing greater uniformity in methods of collection and presentation of educational data generally. The average enrolment and attendance in each State during 1943 are shown below :—

STATE SCHOOLS : AVERAGE ENROLMENT AND ATTENDANCE, 1943.

State or Territory.	Average Weekly Enrolment.	Average Daily Attendance.	Percentage of Attendance on Enrolment.
	No.	No.	%
New South Wales	333,317	285,873	85.77
Victoria	198,567	175,992	88.63
Queensland	128,832	103,943	80.68
South Australia	69,257	61,963	(a) 89.15
Western Australia	55,827	51,227	91.76
Tasmania	30,916	27,470	88.85
Northern Territory(b)	198	182	91.92
Australia—1943	816,914	706,650	86.47
1942	805,088	686,330	85.22

(a) Excludes correspondence students.

(b) Year ended 30th June, 1944.

The percentage of attendance on enrolment is lowest in Queensland, but this figure is not comparable with those of the other States, as no average enrolment is available for Queensland.

Extraordinary epidemics apart, it would appear from the steadiness of the returns in recent years that the percentage of attendance on enrolment is approaching its maximum under present conditions in Australia. Recurring epidemics of contagious diseases, minor illnesses, bad weather and long distances are all serious factors limiting the full attendance of pupils at school.

The average attendance at the State Schools in Australia is shown below for the year 1891 and at varying intervals to 1943 :—

STATE SCHOOLS : AVERAGE ATTENDANCE, AUSTRALIA.

Year.	Total Population. (a)	Average Attendance.	Year.	Total Population. (a)	Average Attendance.
1891	3,421	350,773	1938	6,930	757,669
1901	3,825	450,246	1939	6,997	744,095
1911	4,574	463,799	1940	7,069	741,496
1921	5,511	666,498	1941	7,137	732,116
1931	6,553	817,262	1942	7,197	686,330
1933	6,657	805,334	1943	7,266	706,650

(a) At 31st December, in thousands.

It is possible, for Census years, to relate with reasonable accuracy the average attendance of scholars at State Schools to the number of children who are approximately of school age. For this purpose the ages 5 to 15 years, both included, have been taken and the average attendance per thousand children was :—1891, 455; 1901, 464; 1911, 477; 1921, 544; and 1933, 585. Although other factors might have affected the results in a minor degree it would appear that considerable improvement has taken place in school attendance.

(iii) *Schools in the Australian Capital Territory.* During 1943 eleven State Schools were in operation in the Australian Capital Territory; individual pupils enrolled numbered 1,798; average attendance was 1,563; and cost of upkeep amounted to £34,547. By arrangement with the Commonwealth Government these schools are conducted by the New South Wales Education Department in the same way as the ordinary State Schools, the Department being recouped for expenditure. Ample provision has been made for both primary and secondary education, and this will be increased to meet requirements. The figures quoted, other than expenditure, do not include enrolment, etc., at the Trade School and the Evening Continuation School. A reference to the Canberra University College will be found in § 6, par. 9.

3. Distribution of Educational Facilities.—(i) *In Sparsely-settled Districts.*—

(a) *General.* The methods adopted in the various States to carry the benefits of education into the remotest and most sparsely-settled areas are set out in some detail in previous issues of the Official Year Book (see No. 22, pp. 430-1).

(b) *Correspondence Teaching.* Teaching by correspondence has been adopted to meet the needs of children out of reach of the ordinary means of education, including those prevented from attending school through physical ailment. Approximately 20,500 children received instruction in this way during 1943, the respective numbers in each State being: New South Wales, 9,467; Victoria, 1,170; Queensland, 5,541; South Australia, 2,032; Western Australia, 1,760; and Tasmania, 466.

(ii) *Centralization of Schools.* The question of centralization of schools adopted so successfully in America and Canada has received considerable attention in Australia. It is recognized that a single adequately staffed and well equipped central institution can give more efficient teaching than a number of small scattered schools in the hands of less highly trained teachers, and the small schools in some districts were therefore closed and the children conveyed to the central institution. The principle was first adopted in New South Wales in 1904, and in 1943 a sum of £20,219 was expended in boarding allowances and conveyance to central schools. Cost of conveyance to State Schools in Victoria during 1943-44 amounted to £47,573. In Queensland during 1943-44 the cost of transport by rail, road and boat, amounted to £22,165. In South Australia the sum of £19 785 was disbursed in travelling expenses of school children in 1943, while £21,576 was spent in Western Australia during 1942-43, £34,382 in Tasmania in 1943, and £3,374 in the Australian Capital Territory in 1943-44.

(iii) *Area Schools.* A new feature in education has been established since 1936 in rural districts in Tasmania under the title of "Area Schools". These schools cater for certain groups of children brought from surrounding districts by buses and give instruction with a distinct rural inclination. In 1943 there were 15 area schools in operation having an average weekly enrolment of 3,177 scholars with a daily average attendance of 2,789. The total expenditure on these schools in 1943 was £59,747.

(iv) *Education of Backward and Defective Children.* This subject was referred to at some length in preceding issues of the Official Year Book (see No. 22, pp. 431-2.)

(v) *Evening Schools.* Evening Continuation Schools have been in existence for many years in some of the States, but their progress has been uncertain. The aim of these schools is to provide a means of furthering the education of those who have left school at the termination of the primary course. Practical and cultural subjects are combined in the curriculum to be of assistance to those attending in their occupations and their civic life. In New South Wales the 28 Evening Continuation Schools had an average weekly enrolment in 1943 of 1,391 and an average attendance of 905. The schools are divided into three groups, junior technical, domestic science, and commercial. Attendances at the schools for boys numbered 789, and at those for girls 116. The cost of maintaining these schools in 1943 was £7,015. Unemployed pupils receive free tuition, and all fees are refunded to others with a satisfactory record of attendance. In Western Australia evening continuation classes were held at 23 centres in 1930, with an average enrolment of 2,777 pupils, but the classes were discontinued at the end of that year and preparatory technical classes were substituted wherever there was a technical school in operation.

(vi) *Higher State Schools.* In all the States higher schools have been established which provide advanced courses of instruction for pupils who have completed the primary grades. Reference to the development of these schools will be found in preceding Official Year Books (see No. 22, pp. 433-4).

(vii) *Agricultural Training in State Schools.* Extended reference to the methods adopted in the teaching of agriculture in State Schools was incorporated in preceding Official Year Books (see No. 22, pp. 434-7).

4. *Training Colleges.*—The development of the training systems of the various States is referred to at some length in earlier issues of the Official Year Book (see No. 22, pp. 437-9).

5. *Expenditure.*—(i) *Maintenance—All Schools.* The net expenditure on maintenance in all grades of schools, excepting senior technical schools and in Victoria and Tasmania junior technical schools, and the cost per head of average attendance for the five years ended 1943 are shown in the following table. The figures do not include expenditure on buildings, which is given separately in a subsequent table. All expenditure tables the figures for Victoria, Queensland and Western Australia relate to the financial year ended six months later than the calendar year.

STATE SCHOOLS : NET EXPENDITURE ON MAINTENANCE.

Year.	N.S.W. (a)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Terr.	Total.
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TOTAL (INCLUDING SECONDARY SCHOOLS).

	£	£	£	£	£	£	£	£
1939	4,598,376	2,667,094	1,481,399	854,037	730,500	320,616	6,802	10,658,824
1940	4,673,143	2,635,641	1,477,743	886,828	732,802	324,972	7,551	10,738,680
1941	4,897,223	2,660,924	1,487,293	881,117	773,680	343,034	8,827	11,052,098
1942	4,767,475	2,732,122	1,429,800	884,382	753,730	403,437	4,074	10,975,020
1943	4,970,296	2,945,099	1,510,568	922,307	804,404	421,684	4,643	11,579,001

PER HEAD OF AVERAGE ATTENDANCE.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1939	15 12 2	14 1 4	13 0 9	12 18 4	14 5 7	11 7 6	11 3 9	14 6 7
1940	15 14 9	14 1 9	13 2 0	13 13 1	14 1 11	11 19 7	12 8 5	14 9 8
1941	16 16 4	14 4 1	13 8 5	14 4 0	14 13 1	12 9 10	18 14 0	15 1 11
1942	17 5 10	15 14 1	14 12 2	14 19 5	14 18 4	14 16 11	27 3 2	16 0 8
1943	17 7 9	16 14 8	14 10 8	15 7 8	15 14 1	15 7 0	25 10 3	16 8 8

(a) Gross figures, receipts not being available.

(ii) *Maintenance—Secondary Schools.* The figures given in the preceding table refer to expenditure on maintenance of all State primary and secondary schools, excluding technical colleges. It has been thought desirable by the State Education Departments to give separate information in regard to the cost of secondary education. The difficulty of making any satisfactory allocation of the kind, however, will be understood when it is realized that both elementary and higher education are in some instances given in the same school and by the same teacher. Unfortunately, too, the term "secondary" has not the same meaning in all States. It might be mentioned here that similar difficulties arise in connexion with the apportionment amongst the various branches of expenditure on administration, inspection and the training of teachers. The figures quoted in regard to cost hereunder have been extracted from the Reports of the State Education Departments, and are subject to the qualifications enumerated above.

STATE SECONDARY SCHOOLS : EXPENDITURE ON MAINTENANCE.

State.	1942.		1943.	
	Cost.	Cost Per Head of Population.	Cost.	Cost Per Head of Population.
	£	s. d.	£	s. d.
New South Wales	1,009,197	7 2	1,031,243	7 3
Victoria	542,616	5 6	618,819	6 3
Queensland	175,642	3 5	198,455	3 9
South Australia	165,097	5 6	181,868	5 11
Western Australia	(a) 170,601	7 2	(b) 157,475	6 8
Tasmania	46,548	3 10	49,786	4 1

(a) Year 1941-42.

(b) Year 1942-43.

The figures in all cases exclude the cost of buildings. In Victoria the total includes the expenditure on "intermediate" education amounting (excluding administration costs) to £141,924 in 1942 and to £165,108 in 1943. For Queensland, the figure quoted excludes the cost of the Agricultural High School and College, which amounted in 1942 to £24,339 and in 1943 to £24,950. For Western Australia the total for 1941-42 includes £96,562 and for 1942-43, £100,194 on account of "post-primary" education.

(iii) *Buildings.* Expenditure on State School buildings, excluding Technical Colleges, for the years 1939 to 1943 was as follows:—

STATE SCHOOLS : EXPENDITURE ON BUILDINGS.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Terr.	Total.
	£	£	£	£	£	£	£	£
1939	411,720	206,481	174,725	85,539	56,994	60,011	539	996,009
1940	270,840	212,110	157,241	75,948	43,686	69,067	..	828,892
1941	288,855	164,568	67,406	58,541	30,987	50,907	..	661,264
1942	471,167	149,750	25,655	40,813	19,069	26,192	30	732,676
1943	362,596	114,261	47,614	67,748	40,354	39,951	944	673,468

The totals for the various States in 1943 include the following amounts expended from loan and other funds. Figures for 1942 are shown in brackets—New South Wales, £81,615 (£205,246), Victoria, £32,496 (£44,671); Queensland, £21,305 (£10,108); South Australia, £29,099 (£8,223); Western Australia, £18,559 (£5,125); and Tasmania, £23,975 (£14,671).

(iv) *Total.* The net total cost of education, including buildings, during the years 1939 to 1943 was as follows:—

STATE SCHOOLS : NET TOTAL COST.

Year.	N.S.W. (a)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Terr.	Total. (b)
	£	£	£	£	£	£	£	£
1939	5,010,096	2,873,575	1,656,124	939,576	787,494	380,627	7,341	11,654,833
1940	4,943,983	2,847,751	1,634,984	962,776	776,488	394,039	7,551	11,567,572
1941	5,186,978	2,825,492	1,554,699	939,658	804,667	393,941	8,827	11,713,362
1942	5,238,642	2,881,872	1,455,455	925,195	772,799	429,629	4,104	11,707,696
1943	5,332,892	3,059,360	1,558,182	990,055	844,758	461,635	5,587	12,252,469

(a) Gross figures, receipts not being available.

(b) See footnote (a).

The figures in this and the preceding tables refer to all grades of State Schools (with the exception of senior technical schools and in Victoria and Tasmania junior technical schools). Including buildings, the net cost per scholar in average attendance for the whole of the State Schools in Australia amounted in 1943 to £17 7s. 8d., as compared with £4 9s. 3d. in 1901.

6. **School Banking.**—With the object of inculcating principles of thrift amongst the children, agencies of the Savings Banks have been established at most of the schools throughout Australia. Particulars of operative accounts for each State and Territory at 30th June, 1945, were as follows :—

SCHOOL SAVINGS BANKS AT 30th JUNE, 1945.

State or Territory.	Agencies.	Depositors.	Amount on Deposit.	Average per Depositor.
	No.	No.	£	£ s. d.
New South Wales	2,654	166,613	551,294	3 6 2
Victoria	2,764	141,797	439,161	3 1 10
Queensland	1,328	57,195	310,713	5 8 8
South Australia	940	70,533	250,919	3 11 2
Western Australia	563	42,668	211,696	4 19 3
Tasmania	409	29,760	90,562	3 0 10
Northern Territory	6	253	1,106	4 7 5
Australian Capital Territory	12	1,013	2,560	2 10 7
Australia—30th June, 1945	8,676	509,832	1,858,011	3 12 11
“ “ 1944	8,909	507,598	1,506,620	2 19 4

§ 4. Private Schools.*

i. **Returns for 1943.**—The following table shows the number of private schools, together with the teachers engaged therein, and the enrolment and average attendance in 1943 :—

PRIVATE SCHOOLS, 1943.

State or Territory.	Schools.	Teachers.	Enrolment.	Average Attendance
New South Wales	718	5,049	108,119	89,150
Victoria	504	2,853	84,511	(a) 80,327
Queensland	219	1,421	32,569	29,817
South Australia	151	818	14,910	12,827
Western Australia	146	675	16,861	15,447
Tasmania	62	309	7,403	5,915
Northern Territory(b)	1	4	60	55
Total—1943	1,801	11,129	264,433	233,538
1942	1,819	10,951	250,022	217,249

(a) Net attendance.

(b) Year ended 30th June, 1944.

The Roman Catholic schools comprise the largest group of private schools in Australia. On the basis of the figures available, approximately 200,000 children, or 77 per cent. of the total in private schools, are educated in Roman Catholic schools.

The figures for Queensland include the returns from Grammar schools, of which there are eight—five for boys and three for girls, with an enrolment of 1,297 boys and 669 girls. These schools are governed by boards of trustees, partly nominated by the Government, and partly by the subscribers to the funds. The trustees make regulations regarding the fees of scholars, the salaries of teachers, and generally for the management of the schools. The Government endowment received in 1943 amounted to £13,200. In addition, a sum of £17,643 was received by way of fees for the tuition of State scholarship holders. The Grammar schools are inspected annually by officers of the Department of Public Instruction.

* Private schools include all schools not wholly under State control. The term “private,” though popularly applied, is, of course, a misnomer.

2. **Growth of Private Schools.**—The enrolment and average attendance at private schools in 1891 and at varying intervals to 1943 were as follows :—

PRIVATE SCHOOLS : ENROLMENT AND ATTENDANCE.

Year.	Enrolment.	Average Attendance.	Year.	Enrolment.	Average Attendance.
1891	124,485	99,588	1939	247,482	219,171
1901	148,659	120,742	1940	249,722	221,317
1911	160,794	132,588	1941	253,479	224,355
1921	198,688	164,073	1942	250,022	217,249
1931	221,387	189,665	1943	264,433	233,538

3. **Registration of Private Schools.**—Conditions in regard to the registration of private schools were referred to in previous Official Year Books (see No. 18, p. 451).

§ 5. Free Kindergartens.

The following information regarding Free Kindergartens has been compiled from particulars supplied by the principals of the chief institutions or the organizing secretary in each State, except in the case of Western Australia where the details were furnished by the Education Department :—

FREE KINDERGARTENS, 1944.

State.	No. of Schools.	Average Attendance.	Permanent Instructors.	Student Teachers.	Voluntary Assistants.
New South Wales ..	22	1,039	78	83	52
Victoria	37	1,808	84	76	129
Queensland	6	250	11	35	45
South Australia(a) ..	16	494	38	20	25
Western Australia ..	7	272	16	12	7
Tasmania	6	295	19	..	1
Total	94	4,158	246	226	259

(a) Includes affiliated suburban centres.

The kindergartens in the foregoing table are all in the metropolitan areas of the various States, with the exception of the following nine country centres, one of which is at Newcastle, New South Wales; two at Geelong, one at Ballarat, Castlemaine, Dandenong and Mildura, Victoria; and two at Launceston, Tasmania. In each capital city, excepting Hobart, there is a training college and the number of students in training during 1944 was 103 in Sydney, 64 in Melbourne, 35 in Brisbane, 20 in Adelaide, and 14 in Perth.

The information given above refers to private kindergarten unions or associations, and excludes the kindergarten branches in the Government schools of the various States

§ 6. Universities.

1. **Origin and Development.**—A brief account of the origin and development of the Universities in the various States is given in preceding issues of the Official Year Book (see No. 22, pp. 442-3).

The statistical officers of the Australian Universities met in conference at Melbourne in August, 1939, and designed forms for the collection of university statistics which were subsequently approved by the Vice-Chancellors' committee, and were amended at a meeting held at Sydney in 1943.

2. **Teaching and Research Staff.**—The following table shows the number of professors, readers, associate and assistant professors, lecturers in charge, lecturers, demonstrators, tutors, etc., on the teaching and research staffs of the Universities during 1943 :—

UNIVERSITIES : TEACHING AND RESEARCH STAFF, 1943.

University.	Professors.	Readers, Associate Professors, Assistant Professors, Lecturers in Charge.	Lecturers, Assistant Lecturers.	Demon- strators and Tutors.	Others.	Total
		No.				
Sydney	43	12	235	23	98	411
Melbourne	24	12	198	123	2	359
Queensland (Brisbane) ..	19	4	154	50	24	251
Adelaide	23	6	108	82	3	222
Western Australia (Perth) ..	9	9	45	6	4	73
Tasmania (Hobart)	10	1	21	2	..	34
New England University College .. .. .	..	..	17	7	10	34
Canberra University College	..	..	9	..	..	9
	128	44	787	293	141	1,393

The Conservatorium of Music in Sydney is attached to the Education Department, and is not under the control of the University, as it is in Melbourne and Adelaide.

3. **Students.**—The number of students enrolled for courses at the Universities during 1943 is shown in the following table :—

UNIVERSITIES : STUDENTS ENROLLED, 1943.

University.	Degree Courses.	Diploma Courses.		Certificate Courses.	Miscellaneous.	Total. (a)
		Post- Graduate.	Sub- Graduate.			
	No.	No.	No.	No.	No.	No.
Sydney	2,843	33	236	..	148	3,248
Melbourne (b)	2,945	..	229	28	358	3,511
Queensland (Brisbane) ..	1,096	16	127	63	115	1,411
Adelaide	1,240	48	238	3	655	2,184
Western Australia (Perth)	581	20	..	..	119	706
Tasmania (Hobart)	245	..	13	..	176	388
New England University College	128	22	1	..	6	157
Canberra University College	15	..	13	..	36	64
Total	9,093	139	857	94	1,613	11,675

(a) Adjustments made for students enrolled in more than one course.
enrolled but attending Canberra University College.

(b) Includes 20 students

Of the total students 7,201 were males and 4,474 females. Included in those enrolled for degrees, 35 were enrolled for higher degree courses in Melbourne, 33 in Adelaide, 19 in Western Australia and 1 in Tasmania.

4. **University Receipts.**—The receipts of the Universities are derived principally from Government grants, students' fees, and income from private foundations, etc. The receipts for the general University functions from all sources other than new bequests during 1943 are shown in the table below. In South Australia Government grants and income from private foundations include amounts in respect of the Waite Agricultural Research Institute.

UNIVERSITIES : RECEIPTS, GENERAL ACTIVITIES, 1943.

University.	Government Grants.	Students' Fees.	Interest, Rent, Dividends and Donations.	Other.	Total
	£	£	£	£	£
Sydney	111,050	96,930	54,828	4,302	267,110
Melbourne	110,795	67,273	19,773	15,467	213,308
Queensland (Brisbane) .. .	37,500	23,703	11,604	9,206	82,013
Adelaide	74,761	29,576	24,155	5,593	134,085
Western Australia (Perth)	37,600	3,152	3,157	3,879	47,788
Tasmania (Hobart) .. .	16,028	2,866	614	2,003	21,511
New England University College .. .	17,006	1,458	448	8,005	26,917
Canberra University College	3,376	560	44	54	4,034
Total	408,116	225,518	114,623	48,509	796,766

The figures in the foregoing table do not include the value of new foundations received by the Universities during 1943, which were as follows :—Sydney, £7,412 ; Melbourne, £19,195 ; Queensland, £200 ; and Adelaide, £103,668.

5. **Principal University Benefactions.**—In preceding issues of the Official Year Book information is given in some detail in regard to the extent to which the Universities have benefited from private munificence. Space will permit of reference herein to the more important benefactions only.

The endowments to the Sydney University include the Challis Fund, £399,137 ; the G. H. Bosch Fund, £268,944 ; the P. N. Russell Fund, £101,456 ; the Oswald Watt Fund, £113,474 ; and the Fisher Estate, £43,478. In addition, the University receives a large annual revenue from the trustees of the McCaughey bequest. Excluding the principal of the latter, the credit balances of the private foundations amounted to £1,563,759 at 31st December, 1944.

Mr. David Edward Lewis in 1941 bequeathed approximately £700,000 to trustees to provide scholarships at the Melbourne University for boys from State elementary and secondary schools. This bequest is the largest made in Australia for educational purposes. Mr. Sidney Myer's gifts for various special and general purposes amounted to £60,000, while Sir Samuel Gillott, Mr. Edward Wilson (Argus Trust), and Sir Samuel Wilson contributed £41,000, £34,000, and £30,000 respectively. The estate of the late Miss Helen Mackie provided £40,000 for the endowment of pre-clinical chairs, while Mr. R. B. Ritchie's gifts for the endowment of a Chair of Economics amounted to £30,000, and two sums of £30,000 and £25,000 were received from the Supreme Court Library Fund for the endowment of a Chair of Public Law and for the development of law teaching respectively. Dr. James Stewart founded scholarships in Anatomy, Medicine and Surgery

to the capital value of £26,000. The Hon. Francis Ormond contributed £20,000 to the University as well as benefactions to Ormond College amounting to considerably over £100,000 and the late Dr. F. Haley left £45,000 for medical research. Bequests of approximately £20,000 each for general purposes were made by Mr. John Hastie and Mr. C. D. Lloyd, while similar sums were bequeathed by the late Sir John Higgins for research scholarships in industrial chemistry and biochemistry as related to the pastoral and agricultural industries and by Mr. R. J. Fletcher for medical research. The late Mr. E. Truby Williams gave £52,000 for the Conservatorium of Music, the library and general purposes. Mr. Russell Grimwade gave £20,000 as a first instalment of a gift of £50,000 for a new school of biochemistry, and the trustees of the W. L. Baillieu Trust have given £32,900 as a first instalment of a gift of about £100,000 with which a new library will be built.

Queensland University, to 30th April, 1945, had received £231,243 from the McCaughey estate, and £38,824 from the Walter and Eliza Hall Trust, while the Hon. T. C. Beirne gave £20,000 in 1935 for the endowment of a Chair of Law in Queensland. The permanent site for the University and other land valued at £62,000 were presented by Dr. and Miss Mayne.

The chief benefactors to the Adelaide University were Sir Thomas Elder, £100,000; Sir George Murray, £90,000; Sir Langdon Bonython, £72,000; Miss M. T. Murray, £45,000; Mr. T. E. Barr Smith, £45,000; Dr. F. Lucas Benham, £44,000; Mrs. Jane Marks, £30,000; Edward Neale, £27,000; Mrs. R. F. Mortlock and J. T. Mortlock, £25,000; Family of John Darling, £25,000; Sir William Mitchell, £25,000; and R. Barr Smith and family, £20,000. Several valuable properties, in addition to shares which realized £58,450, were also bequeathed to this University by Mr. Peter Waite, the total value of the bequest being estimated at £100,000.

Under the will of Sir Winthrop Hackett the University of Western Australia received £425,000, in addition to the endowment of the Chair of Agriculture, for the erection and maintenance of University buildings and for studentships, scholarships, bursaries and other financial help for deserving students, while the late Robert Gladden bequeathed an estate valued at £60,000, particularly to provide travelling scholarships.

6. University Expenditure.—The principal item of disbursements under the general University activities consists of the salaries of teaching and research staff representing 70.6 per cent. of the total. The following table gives the expenditure during 1943, excluding capital expenditure on buildings:—

UNIVERSITIES : EXPENDITURE, GENERAL ACTIVITIES, 1943.

University.	Admin- istration.	Maintenance of—			Other.	Total
		Teachers' Depart- ment.	Premises.	Libraries.		
	£	£	£	£	£	£
Sydney	21,684	197,175	20,088	9,107	10,201	258,255
Melbourne	17,230	142,744	17,356	6,585	19,114	203,029
Queensland (Brisbane) ..	7,307	64,305	7,661	2,943	8,136	90,352
Adelaide	5,369	91,600	9,561	7,265	18,682	132,567
Western Australia (Perth)	4,311	32,883	5,194	3,575	2,797	48,760
Tasmania (Hobart)	2,289	11,848	1,222	987	3,032	19,378
New England University College	3,130	9,554	3,516	586	10,131	26,917
Canberra University College	992	2,524	144	164	30	3,854
Total	62,312	552,723	64,742	31,212	72,123	783,112

7. Extra-University Activities.—(i) *General.* The tables shown in paragraphs 4 and 6 relate to the general University activities while the following tables show the financial position of all extra-university activities. The heterogeneous character of the items in the statements for these activities varies to such extent between the Universities that comparisons of the totals are misleading, but they include all items excluded from the general statement and give useful information within limits.

(ii) *Receipts, Extra-University Activities.* The following table shows the main receipts for the year 1943.

UNIVERSITIES : RECEIPTS, EXTRA ACTIVITIES, 1943.

University.	Government Grants.	Interest, Rent, and Dividends.	Candidates' Fees, Public Examination.	Special Research Grants.	Other.	Total
	£	£	£	£	£	£
Sydney	870	33,576	2,514	54,411	2,218	93,589
Melbourne	7,500	23,282	33,981	9,267	(a) 50,639	124,669
Queensland (Brisbane)	200	1,896	12,938	5,743	491	21,268
Adelaide	5,250	9,749	8,539	10,535	4,052	38,125
Western Australia (Perth)	200	12,746	7,940	3,949	(b) 7,460	32,295
Tasmania (Hobart) ..	..	..	1,436	3,681	1,188	6,305
New England University College ..	..	..	..	..	..	..
Canberra University College	1,724	76	..	..	..	1,800
Total	15,744	81,325	67,348	87,586	66,048	318,051

(a) Includes receipts, Superannuation Fund £16,947, and University Press, £12,473. (b) Includes University Press £4,340.

(iii) *Expenditure, Extra-University Activities.* The following table shows the main items of expenditure for the year 1943.

UNIVERSITIES : EXPENDITURE, EXTRA ACTIVITIES, 1943.

University.	Salaries, Fees, etc.	Public Examination Expenses.	Adult Education and Extension.	Special Research Expenses.	Other.	Total.
	£	£	£	£	£	£
Sydney	5,421	..	5,815	56,590	5,388	73,214
Melbourne	11,267	17,707	6,046	12,289	(a) 62,344	109,653
Queensland (Brisbane)	..	11,240	118	6,534	3,479	21,371
Adelaide	4,677	6,097	1,809	10,535	8,799	31,917
Western Australia (Perth) .. ..	..	7,265	2,875	6,099	(b) 9,717	25,956
Tasmania (Hobart) ..	..	1,328	..	3,783	1,692	6,803
New England University College ..	..	..	..	..	..	..
Canberra University College .. ..	..	..	..	..	(c) 1,800	1,800
Total	21,365	43,637	16,663	95,830	93,219	270,714

(a) Includes University Press £11,252, Superannuation Fund £19,674. (b) Includes University Press £3,726. (c) Scholarships, etc.

8. **University Extension.**—Some account of the initiation and progress of university extension is given in preceding Official Year Books (see No. 22, p. 446).

9. **Canberra University College.**—The question of the establishment of a University at the Australian Capital is still under consideration, and in the meantime a University College has been established under the Canberra University College Ordinance 1929-1940. Lectures commenced in 1930 with the aid of several part-time lecturers, and 30 students were enrolled during the year. By virtue of a temporary regulation of the University of Melbourne, which expires on 31st December in the year following that of termination of the 1939-1945 War, the College is empowered to provide approved lectures in the subjects of the Arts, Science, Commerce and Law courses in preparation for certain degrees and diplomas of that University. In 1945 the students numbered 149, while the staff consisted of six full-time and fifteen part-time lecturers.

10. **New England University College.**—New England University College, comprising a Faculty of Arts and Economics and a Faculty of Science, is governed by the University of Sydney. It is situated at Armidale, on the Northern Tablelands of New South Wales. The present main university building stands in 183 acres of land and was presented to the University College by Mr. T. R. Forster, in 1937. The Government of New South Wales bore the expense of converting it to its present use. Lectures began at the College on 14th March, 1938. Students wishing to proceed to degrees in Economics, Veterinary Science and Agriculture may take the earlier courses at the College. In 1945 there were nineteen lecturers, including one part-time, ten demonstrators and tutors including six part-time, and fourteen honorary lecturers, 164 students taking courses leading to degrees, 23 students taking diploma courses and 25 servicemen whose courses had been suspended until their return. In addition Extension Board courses were conducted throughout the year.

11. **Workers' Educational Associations.**—In 1913 Workers' Educational Associations were formed in all the States of Australia, and later in New Zealand. The movement has for its object the bringing of the University into closer relationship with the masses of the people, and thereby providing for the higher education of the workers in civic and cultural subjects. There are now direct grants from all State Governments except Western Australia and Queensland. The particulars of grants for classes in 1944 were as follows:—New South Wales, £8,591, 67 tutorial classes, 285 discussion groups, 7 other classes and 277 lectures given in short courses to the public or to other organizations; Victoria, £5,900, 63 tutorial classes, 3 "carry on" groups and 55 "box scheme" groups and extension work; Tasmania, £2,700, 25 classes; South Australia, £2,250, 10 tutorial classes, 19 lecture classes, 2 study circles, 3 discussion groups and extension lectures at country centres; Queensland, 6 classes, 1 discussion group and 700 subscribers to the library. In addition, the New South Wales and South Australian Associations each receive a Government grant of £770 and £240 respectively for general organizing purposes. The New South Wales association received an additional grant of £1,500 from the State Government in 1945, for "Extension of Adult Education". The Carnegie Corporation has in recent years shown its interest in the work by allotting substantial grants to the Associations and to the Universities. The principal subjects chosen in all States are Industrial History, Economics, Political Science and Sociology, but there is an increasing number of classes in other subjects such as History, Psychology, Philosophy, Literature, Music, Physiology and Biology. The Universities in New South Wales, Victoria and South Australia co-operate with the W.E.A. in the formation of a joint committee for tutorial classes, which supervises the work with the assistance of a University officer with the title of Director of Tutorial Classes. In addition to the longer University tutorial classes, many preparatory classes, study circles, and summer schools are organized by the Association, numerous courses of public lectures are delivered, educational conferences are promoted, and an extensive book service is spreading educational literature throughout Australia.

§ 7. Universities Commission.

1. **General.**—The Universities Commission is a Commonwealth instrumentality set up at the beginning of 1943 by the Commonwealth Government primarily to achieve the following objects :—

- (a) To advise the Commonwealth Government on questions of Manpower in so far as they relate to the training of University students ;

NOTE.—The Universities Commission is the authority for university and university-type training under the Commonwealth Reconstruction Training Scheme. This feature of the Commission's activities is dealt with under § 10 "Commonwealth Reconstruction Training Scheme".

- (b) To arrange for the training of adequate numbers of graduates for all kinds of national service and to attract able students to the University for such training ; and

- (c) To administer the scheme of financial assistance.

From the commencement of the war in 1939, the Commonwealth Government has recognized the vital necessity of a continuing flow of properly trained graduates from certain of the faculties of the Universities, particularly from the six faculties of Medicine, Dentistry, Engineering, Science, Veterinary Science and Agriculture. The policy of the Government had, therefore, always been to reserve a number of students to commence and to continue those courses.

As the war developed, it became necessary to determine more accurately the number of students who could be reserved and further, to administer more closely the scheme of reservation.

2. **Students Reserved.**—(i) *General.* The Universities Commission was therefore given the function of advising the Government on the number of students who could be reserved to commence first year courses in the six faculties mentioned.

In 1943 more than one hundred extra. reserved places were provided in the first year in the reserved faculties than in 1942. The 1944 figures were approximately the same as the 1943 figures.

- (ii) *Students in Reserved Faculties.* The 1944 figures are as follows :—

NUMBER OF STUDENTS IN RESERVED FACULTIES.—YEAR 1944.

Faculty.	University.						Total.
	Sydney.	Melbourne.	Queensland.	Adelaide.	Western Australia.	Tasmania.	
Medicine ..	185	140	60	55	20	5	465
Science ..	160	140	30	70	50	25	475
Engineering ..	110	90	55	45	40	10	350
Dentistry ..	70	40	25	15	..	2	152
Agriculture ..	30	25	15	15	10	..	95
Veterinary Science	40	10	..	..	..	..	50
Total ..	595	445	185	200	120	42	1,587

In many cases considerably more students applied for enrolment, and selection was therefore necessary according to merit.

(iii) *Extensions of Reservations.* The scheme of reservation was extended in 1943 to cover the faculties of Arts, Economics, Law and Architecture, and the following reserved places were provided in 1944 in all years in these faculties:—

NUMBER OF RESERVATIONS IN OTHER FACULTIES, 1944.

Faculty.	University.						
	Sydney.	Melbourne.	Queensland.	Adelaide.	Western Australia.	Tasmania.	Total.
Arts	84	45	18	27	22	15	(a) 212
Economics ..	66	56	12	16	10	7	167
Law	22	24	7	7	3	6	69
Architecture ..	24	21	..	12	..	..	57
Total	196	146	37	62	35	28	(a) 505

(a) Includes 1 at Canberra University College.

In order to make the best possible use of University facilities, the Commonwealth Government has adopted, through the Universities Commission, the policy of endeavouring to attract able students to the Universities. To this end various steps are taken to explain to students leaving school the opportunities available at the Universities and the national requirements in respect of trained graduates. Moreover, a scheme of financial assistance was introduced in order to ensure that able students would not be prevented from considering University courses because of their financial position.

During the war active steps were taken to explain to students and to the public generally the necessity for reserved students continuing their courses without interruption until graduation and that in general no reserved student could be allowed to enlist.

3. *Financial Assistance.*—(i) *General.* Under this scheme, assistance is available (subject to a means test) to all reserved students enrolled in the degree courses of Medicine, Dentistry, Engineering, Science, Veterinary Science, Agriculture, Arts, Law, Economics and Architecture.

At the beginning of 1944 the scheme of assistance was extended to cover selected students doing courses for the Diploma of Social Studies at the Universities of Sydney, Melbourne and Adelaide. It was further extended to cover selected full-time day diploma students in Senior Technical Colleges which were approved for that purpose and to the Western Australian Dental College. The number of students reserved in Technical Colleges was 132.

(ii) *Scale of Assistance.* The maximum assistance granted to a student is the payment of all his University fees plus a living allowance of £104 per annum if he is living with a parent or £143 per annum if he is not living with a parent. In addition an allowance of up to £10 may be made over the whole course towards the cost of the purchase or hire of necessary instruments. The maximum assistance is payable when the adjusted income does not exceed £250 per annum. For every £10 by which the adjusted income exceeds £250 per annum, the assistance is reduced by £5 4s. per annum.

The adjusted income is ascertained by taking the taxable income of the student and of his parents and by deducting therefrom £50 for each dependent child under sixteen years of age. The assistance is supplementary to any other assistance which a student receives and the Commission deducts from its assistance the value of any scholarship or other award held by a student.

(iii) *Number of Students Assisted.* The following table gives a comparison of students assisted in the various faculties in each University in 1943 and 1944.

NUMBER OF STUDENTS ASSISTED IN EACH FACULTY, 1943 AND 1944.

Faculty.	Year.	University.						Total.
		Sydney.	Mel- bourne.	Queens- land.	Ade- laide.	Western Australia.	Tas- mania.	
RESERVED FACULTIES.								
Medicine ..	1943	233	122	49	60	3	..	467
	1944	246	115	48	49	7	2	467
Science ..	1943	185	125	45	51	63	18	487
	1944	177	110	44	68	66	11	476
Engineering ..	1943	105	83	32	66	61	12	359
	1944	103	89	37	65	55	15	364
Dentistry ..	1943	64	18	15	8	..	..	105
	1944	62	20	16	6	..	1	103
Agriculture ..	1943	22	18	10	5	9	..	64
	1944	27	26	6	11	11	..	81
Veterinary Science ..	1943	32	3	..	..	..	..	35
	1944	43	4	..	..	..	..	47
Total Reserved Faculties	1943	641	369	151	190	136	30	1,517
	1944	658	364	151	199	139	29	1,540

UNRESERVED FACULTIES.

Arts ..	1943	32	13	..	5	9	1	60
	1944	9	13	3	9	9	2	45
Economics ..	1943	13	12	2	3	..	2	32
	1944	11	11	..	1	..	3	26
Law ..	1943	3	4	..	2	..	2	11
	1944	4	7	..	..	1	3	15
Architecture ..	1943	1	2	..	..	..	..	3
	1944	7	3	..	..	..	..	10
Social Studies ..	1943	..	..	..	..	..	..	..
	1944	10	11	..	5	..	..	26
Total Unreserved Faculties	1943	49	31	2	10	9	5	106
	1944	41	45	3	15	10	8	122

§ 8. Technical Education.

1. *General.*—Although provision has been made in all of the States for many forms of technical education, the total expenditure figures still indicate a low proportion in comparison with the total educational votes. The rapid expansion of manufacturing industries in recent years, however, is increasing the demand for technically trained personnel, while the technical training by the Department of Labour and National Service and the Commonwealth Reconstruction Training Schemes are being rapidly expanded. (See §§ 9 and 10 following).

In preceding issues of the Official Year Book an outline was given of the origin and development of technical education in each State (see No. 22, pp. 447-51), but considerations of space preclude the inclusion of more up-to-date information.

2. **Schools, Teachers and Students.**—The number of schools, teachers and enrolments of individual students during 1943 are given in the following table :—

TECHNICAL EDUCATION : SCHOOLS, TEACHERS AND ENROLMENTS, 1943.

State	Schools or Colleges.	Teachers.			Individual Students Enrolled.	
		Full-time.	Part-time.	Total.	Male.	Female.
New South Wales ..	27	438	1,067	1,505	25,240	9,700
Victoria(a) ..	31	925	610	1,535	29,014	9,573
Queensland ..	13	107	118	225	5,254	1,405
South Australia ..	17	(b)	(b)	328	6,413	4,539
Western Australia ..	8	72	109	181	3,655	1,844
Tasmania(a) ..	6	53	180	233	2,235	768
Total 1943 ..	102	..	..	4,007	71,811	27,829
1942 ..	101	..	..	3,960	73,954	24,572

(a) Includes junior enrolments, 9,660 males and 1,538 females in Victoria, and 830 males and 43 females in Tasmania, as teaching staff and expenditure cover both senior and junior sections.
(b) Not available.

The number of individual scholars enrolled during the years 1939 to 1943 are given below. In order to make the figures comparable enrolments at Junior Technical Schools are omitted from the Victorian and Tasmanian figures.

TECHNICAL EDUCATION : INDIVIDUAL STUDENTS.

State.	1939.	1940.	1941.	1942.	1943.
New South Wales ..	37,264	38,536	40,983	39,381	34,940
Victoria ..	28,844	29,706	30,276	24,304	27,389
Queensland ..	6,397	7,069	6,393	6,785	6,659
South Australia ..	9,721	9,980	10,518	9,768	10,952
Western Australia ..	5,673	6,210	6,299	5,323	5,499
Tasmania ..	1,316	2,065	2,418	2,073	2,130
Total ..	89,215	93,566	96,887	87,634	87,569

3. **Expenditure.**—The expenditure on technical education in each State for 1943 is shown below :—

TECHNICAL EDUCATION : EXPENDITURE, 1943.

State.	Salaries and maintenance.	Equipment.	Buildings.	Total.	Receipts—Fees, etc.	Net Expenditure.
	£	£	£	£	£	£
New South Wales ..	358,767	45,374	104,911	511,494	116,639	394,855
Victoria(a) ..	453,955	17,016	66,318	568,774	101,682	..
Queensland ..	76,818	17,146	1,746	95,710	18,986	76,724
South Australia ..	84,729	4,265	3,598	93,751	17,052	76,699
Western Australia ..	39,715	4,924	340	44,979	3,122	41,857
Tasmania(a) ..	44,517	7,377	2,722	54,616	8,976	45,640
Total 1943 ..	1,058,501	96,104	179,635	1,369,324	266,457	..
1942 ..	974,135	87,988	141,187	1,229,814	200,272	..

(a) Includes the expenditure on Junior Technical Schools.

Fees and other receipts are paid into Consolidated Revenue in all States except Victoria, where they are retained and spent by the Technical School Councils. The expenditure on buildings is largely financed from loan moneys, the sums provided from this source in 1943 being (the expenditure in 1942 is shown in brackets):—New South Wales, £79,016 (£2,302); Victoria, £48,659 (£53,577); Queensland, £428 (£8,961); South Australia, £1,714 (£14,584); Western Australia, nil (£5,620); and Tasmania, £1,887 (£8,634).

The expenditure on maintenance for technical education in Australia in 1943 amounted to 3s. 2d. per head of population, as compared with 3s. 0d. per head expended on maintenance for primary and secondary education.

§ 9. Commonwealth Technical Training Scheme.

1. *Origin of the Scheme.*—The Commonwealth Technical Training Scheme was originated to provide for the training of civilians and Armed Services personnel to make up the deficiency of skilled artisans for the production of munitions and to meet the demands of the Armed Services for skilled technicians.

In September, 1939, an expert Advisory Committee, representative of the Technical Educational Authorities, the Munitions Department and employers' and employees' organizations, was established and a scheme was developed for the training of additional artisans to meet the requirements of the Departments of Munitions and Aircraft Production.

The subsequent development of the Empire Air Training Scheme, and the mechanization of the Armed Forces created a further demand for additional skilled tradesmen and technicians for the Fighting Forces.

In May, 1940, the Commonwealth Government entered into an agreement with the engineering trades employer and employee organizations relating to the dilution of skilled labour in war production factories, and the National Security Dilution Regulations which provided for the training of "Dilutees" and "added tradesmen" were proclaimed.

With the co-operation of the State Educational Authorities, the existing facilities of State controlled Technical Schools and Colleges were made available to their full extent to give intensive courses of instruction to civilians and members of the Armed Forces. Where necessary, these facilities were supplemented by additional machines and equipment was made available on loan by the Commonwealth.

2. *Administration.*—The scheme was administered prior to February, 1941, by the Department of Munitions, and after that date by the Industrial Training Division of the Department of Labour and National Service. The main functions of that Department were to organize, co-ordinate, and generally direct the training through the administrative machinery of the State Education Departments and other suitable agencies. Close collaboration was maintained with the Departments of the Navy, Army, Air, Munitions and Aircraft Production in respect of training for these Services and with the Central Dilution Committee in respect of training in civilian dilution trades authorized under the Commonwealth National Security Dilution Regulations. The cost of the training, including financial provision for all additions to premises, equipment and teaching personnel was met by the Commonwealth Government.

3. *Progress.*—The first class for the training of Servicemen was established on the 18th December, 1939—two and a half months after the outbreak of War—and was quickly followed by the establishment of courses in technical schools and colleges throughout Australia. Training Centres were established in sixty Technical Colleges and in most Centres day and night classes were put into operation. With the entry of Japan into the War, the training programme was increased considerably, and six months later the trainees were completing their training at a rate of over 4,000 per month.

Instruction was given in seventy-eight different types of courses, ranging from Armourers, Cooks, Draughtsmen, and Fitters to Photographers, Wireless Mechanics and X-ray Technicians. The courses of training varied in length from eight weeks to twenty-four weeks of full-time instruction, depending on the nature of the course and the degree of proficiency to which it was desired to bring the trainee.

4. **Persons Trained or in Training.**—Up to the 30th June, 1945, 119,612 persons had completed a course of training or were undergoing a course of training under the Scheme. The figures for each State and Service are as follows :—

SUMMARY OF TRAINING AS AT 30th JUNE, 1945.

Service.	N.S.W.	Vic.	Q'ld.	S.A.	W.A.	Tas.	A.C.T.	Total.
Navy	17	325	..	..	..	..	..	342
Army	7,098	7,575	6,036	1,165	3,215	300	..	25,389
Air	21,391	24,198	51	15,691	8,742	249	..	70,618
Munitions and Aircraft Production	6,223	9,828	2,609	2,433	1,323	533	314	23,263
Total	34,729	41,926	8,696	19,289	8,280	1,082	5,610	119,612

§ 10. Commonwealth Reconstruction Training Scheme.

1. **Object of the Scheme.**—The object of the Commonwealth Reconstruction Training Scheme is to provide the necessary training for ex-servicemen and women to enable them to become re-established in suitable civilian occupations. Except in the case of living allowances, the provisions for men and women are identical.

2. **Persons Eligible under the Scheme.**—Application for full-time training under the scheme may be made by Servicemen and Servicewomen who have at least six months' service and have been honorably discharged, provided that they come within one of a number of categories, which may be summarized as follows :—

- Those who because of incapacity due to the war are unable to return to their pre-war occupation ;
- Those who enlisted or were called up on or before their twenty-first birthday, and are suitable for professional or vocational training ;
- Those who require a short refresher course, or who desire to complete a full-time professional course interrupted by war service, or who contemplated such a course prior to their war service and are suitable therefor ;
- Those who either have been self-employed prior to enlistment and are unable to resume their former activities, or possess vocational skill now in over-supply, and who in either case can be suitably trained for re-establishment in another occupation ; and
- Those who have displayed, during their war service, conspicuous ability and are suitable for professional or vocational training.

Widows of Servicemen whose death was due to war service, are also eligible for training.

3. **Selection for Training.**—Training under the scheme is not designed as a reward for war service and if a serviceman or woman is already well qualified in a suitable trade or profession, he or she will not be encouraged to train for some new occupation except in special cases. In making selections care is taken to ensure that the applicant is suitable for the desired course of training and that there are reasonable openings or prospects for the profitable pursuit of the calling.

4. **Types of Training.**—The Commonwealth Reconstruction Training Scheme provides three main types of training :—

- University type (professional) ;
- Technical type (professional or vocational) ; and
- Rural Training.

Professional training follows normal lines at a University or similar institution. Vocational training includes all types of trade training usually given at technical colleges or schools. Training covers from 3 to 12 months and is continued until trainee attains a standard of proficiency equal to an earning capacity of not less than 40 per cent. The

trainee is then placed in suitable employment for training "on the job" and receives the normal award rate for adults, the percentage proficiency being supplemented by the Commonwealth Government until the trainee reaches 100 per cent.

Rural training will take the following forms according to circumstances in each case :—

- (a) Practical training for a period of up to two years on an approved farm ;
- (b) An intensive course in farm management of about eight weeks duration ;
- (c) Training at technical training institutions for such vocations as wool classing, meat inspection ; and
- (d) Courses at agricultural colleges.

5. **Allowances.**—For full-time training, all tuition and examination fees are paid for the trainees, also allowances for books, tools and other essential equipment. Living allowances are paid during training, ranging from £3 5s. per week for a man without dependants. A woman living with parents receives £2 10s. per week while one maintaining herself receives £3 5s. per week. Dependants' allowances are paid to both men and women. Additional allowances are paid where the trainee is required to live away from his or her home town.

6. **Part-time Training.**—The scheme also makes provision for part-time training up to a limit of £60 allowance to a member with six months' service, if it will improve his or her occupational status and this is given, as far as possible, through Universities and Governmental institutions.

7. **Legal Authority.**—Legal authority for the scheme is contained in the Re-establishment and Employment Act, No. 11, 1945, Part III.

8. **Organization and Administration.**—The Scheme is administered by executive committees within the Ministry of Post-war Reconstruction. The Commonwealth Reconstruction Training Committee as the central committee has the functions of general planning, organization and direction. Membership of this committee comprises representatives of the Ministry of Post-war Reconstruction (Chairman), Repatriation Commission, University Commission and the Department of Labour and National Service, and three members appointed by the Minister and drawn from organizations of employers, employees and ex-servicemen.

The detailed administration and execution of the scheme is carried out by Regional Reconstruction Training Committees, of which there is one in each capital city. Associated with the Regional Committee are Professional, Industrial and Rural Sub-Committees made up of employee and employer representatives in the particular calling with a representative of the training authority concerned.

To 30th June, 1945, full-time enrolments had spread over 85 different courses and part-time enrolments over 189 subjects or courses.

The scheme commenced to operate in a limited way in March, 1944, and the number of ex-servicemen and women who had commenced training under the scheme at 30th June, 1945, was as follows :—

NUMBER OF TRAINEES AT 30th JUNE, 1945.

Particulars.	Male.	Female.	Total.
Technical Type Training—			
Full-time	1,417	140	1,557
Part-time	5,719	596	6,315
University Type Training—			
Full-time	1,124	199	1,323
Part-time	450	17	467
Total	8,710	952	9,662

§ 11. Business Colleges and Shorthand Schools.

There has been a considerable development in recent years both in the number and scope of privately conducted institutions which aim at giving instruction in business methods, shorthand, typewriting, the use of calculating machines, etc. Particulars at the latest available date are given in the following table. Owing to the varying methods employed in the States it is not possible to give any comparative figures of enrolment:—

BUSINESS COLLEGES, SHORTHAND SCHOOLS, ETC., 1943.

State.	Schools.	Teachers.	Average Attendance of Students.	
			Males.	Females.
New South Wales (a)	54	331	(b) 2,555	(b) 5,460
Victoria (c)	22	172	2,970	3,209
Queensland	10	38	165	1,121
South Australia	14	65	(d) 705	(d) 1,609
Western Australia	12	85	(b) 3,189	(b) 2,227
Tasmania	3	13	9	205
Total	115	704	9,593	13,831

(a) Year 1941. (b) Average weekly enrolment; attendance figures not available. (c) Year 1939. (d) Individual students enrolled.

In addition to those shown above for South Australia there were 2,728 males and 320 females receiving instruction from interstate schools by correspondence. Particulars regarding fees received in 1943 are available for Western Australia and Tasmania only, the respective figures being £41,230 and £3,737.

§ 12. Miscellaneous.

1. *Scientific Societies.*—(i) *Royal Societies.* In previous issues of the Official Year Book an outline was given of the origin and progress of the Royal Society in each State (see No. 22, pp. 454-5). The accompanying table contains the latest available statistical information regarding these institutions, the head-quarters of which are in the capital cities.

ROYAL SOCIETIES : PARTICULARS, 1944.(a)

Particulars.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.
Year of foundation ..	1,866	1,854	1,884	1,834	1,913	1,843
Number of members ..	291	196	224	160	173	285
Vols. of transactions issued ..	77	85	55	68	29	78
Number of books in library ..	37,600	18,000	3,100	1,000	5,550	20,756
Societies on exchange list ..	233	340	240	269	182	274
Income £	1,357	899	174	730	327	332
Expenditure £	1,052	528	143	730	377	331

(a) The Royal Society of Australia, with head-quarters at Canberra, was founded on 25th July, 1930, and received permission to use its title on 14th January, 1931. The members numbered 60 in 1944. Income and expenditure for the year amounted to £18 and £14 respectively.

(ii) *The Australian and New Zealand Association for the Advancement of Science.* This Association was founded in 1887. Its head-quarters are at Science House, Gloucester-street, Sydney, and meetings are usually held biennially within the various States and in the Dominion of New Zealand. The last meeting was held in Adelaide in August, 1946.

(iii) *Other Scientific Societies.* The Linnean Society of New South Wales, with head quarters in Sydney, was founded in 1874. The soundness of its present position is due to the benefactions of Sir William Macleay, who during his lifetime and by his will endowed the society to the amount of £67,000, which has been increased by judicious

investment to over £85,000. The Society maintains a research bacteriologist and offers annually 4 research fellowships in various branches of natural history. Three fellowships were awarded in 1945. The library comprises some 16,000 volumes, valued at about £8,000. Sixty-nine volumes of proceedings have been issued, and the Society exchanges with about 240 kindred institutions. The ordinary membership at the end of 1944 was 175.

The British Astronomical Society has a branch in Sydney, and in each of the States the British Medical Association has a branch.

In addition to the societies enumerated above, there are various others in each State devoted to branches of scientific investigation.

2. *Libraries.*—(i) *Commonwealth.* (a) *Parliamentary and National Library.* When the Commonwealth Parliamentary Library was created in 1902, it was recognized that when the Australian Capital was established it would be necessary to have available there, for the use of Members, Government Departments and the public, a library sufficient for their requirements, and therefore wider in scope than a purely Parliamentary Library. The ideal of a great general library was kept in view, and standard works were systematically acquired. At the same time, the first Library Committee conceived the idea of a National Library for the use and benefit of the people of Australia. The policy was therefore pursued of securing, as far as possible, all works and documents connected with the discovery, settlement and early history of Australia, New Zealand and the Pacific Islands.

In 1909 a valuable collection of *Australiana*, comprising about 10,000 volumes and 6,500 pamphlets, maps, documents and pictures—the library of Mr. E. A. Petherick—was acquired. In 1912 a provision was included in the Commonwealth Copyright Act requiring the publisher of every book, pamphlet, etc., printed in Australia to supply a copy free to the library. In the same year the publication of the *Historical Records of Australia* was begun, and 34 volumes were issued before publication was suspended in 1926.

The rapid development of the Australian and National sections of the Library, together with the purchase of the Cook manuscripts, persuaded the Library Committee in 1923 that the title “Commonwealth National Library” should be adopted. Consequent upon the transfer of the Library to Canberra in 1927 the policy of dividing the Library into two sections was adopted—the Parliamentary reference collection to be housed in Parliament House and the National and Public section in a separate building, both to remain under the one general administration. The first wing of the permanent National Library building, completed in 1935, is designed to meet the requirements of University students and the general public to whom the privileges of the Library have been extended in respect to borrowing as well as reference. The design for the complete building makes ample provision for the housing of special collections and for the proper display of the valuable records of Australian history which the Library possesses. In 1936 a further development in the scope of the National Library was the establishment of an Historical Film and Speaking Record Section.

The work of the National Library was also extended in 1936 as the result of a grant of \$7,500 in three annual instalments of \$2,500 from the Carnegie Corporation of New York for the establishment of library and reading facilities to outlying Australian Territories. Collections of books are regularly sent to the Northern Territory, Papua, New Guinea, Central Australia, Norfolk Island and Nauru.

In 1940, Gregory M. Mathews, C.B.E., presented to the Library his collection of Australian ornithological works comprising approximately 5,000 items.

One effect of the war on the library was to increase the demands made by the Departments and war authorities set up by the Government for specialized material and research in war administrative problems. To meet this and because so many of the Departments were in Melbourne the library opened a liaison office there in 1942. The office is located in Wentworth House, 203 Collins-street, Melbourne.

Consequent on the report of the War Archives Committee appointed by the Prime Minister in 1942 the library was created a provisional archives repository for administrative records of the non-service departments and the war memorial for those of the Services.

Representatives of the Library have been stationed in London (1944) and New York (1945). These officers also act as librarians in the Australian News and Information Bureaux established in those cities by the Department of Information, the books for the bureau libraries being selected and forwarded through the National Library organization.

Following upon the appointment of a National Film Board in 1945 the National Library was made responsible for guiding the Board in its acquisition policy and for building up and distributing a collection of non-theatrical films and other visual aids.

It has been decided by the Federal Cabinet that the Nation's Memorial to the late President F. D. Roosevelt should be a new wing of the National Library designed to house a collection of materials on American history and civilization.

There were 186,341 volumes in the National and Parliamentary collections at the end of June, 1944—the outstanding feature of the National collection being a unique collection of Captain Cook manuscripts, while the Parliamentary section contains an extensive series of official publications of Great Britain, the Dominions, and foreign countries. The following publications are issued by the Library: Historical Records of Australia—34 volumes, 12s. 6d. per volume; Parliamentary Handbook and record of elections—nine issues, 10s. 6d. per volume; Annual catalogue of Australian publications—eight issues, 2s. per volume; Select list of representative works dealing with Australia (reprinted from the Official Year Book)—nine issues; Australian Public Affairs Information Service (monthly).

(b) *Patent Office Library.* The free library attached to the Commonwealth Patent Office, Canberra, contains over 56,000 volumes. Patent specifications of inventions are received from the principal countries of the world, together with official publications dealing with Patents, Trade Marks and Designs. A wide range of technical literature and periodicals is available.

(ii) *States.* (a) *Metropolitan Public Libraries.* In each of the capital cities there is a well-equipped Public Library, the institutions in Melbourne and Sydney especially comparing very favourably with similar institutions elsewhere in the world. The following statement gives the number of volumes in the Public Library of each capital city at 30th June, 1944:—

METROPOLITAN PUBLIC LIBRARIES, 30TH JUNE, 1944.

City.	Number of Volumes in—			Total.
	Reference Branch.	Ordinary Lending Branch.	Country Lending Branch.	
Canberra(a)	186,341	..	(b)	186,341
Sydney ..	(c) 425,643	(d)	102,208	527,851
Melbourne(e)	537,232	84,899	26,916	649,047
Brisbane ..	44,986	..	..	44,986
Adelaide ..	199,735	(f)	(g) 26,844	226,579
Perth ..	169,537	..	(h) 26,663	196,200
Hobart(e) ..	22,762	8,373	(i) 11,181	42,316

(a) Includes Parliamentary section. (b) Books are lent to libraries or students throughout Australia whenever necessary for research work. (c) Includes 140,942 volumes in the Mitchell Library. (d) The maintenance and control of the ordinary lending branch of the Public Library at Sydney were transferred in 1908 to the Municipal Council. At 31st December, 1943, the books numbered 67,186. (e) 31st December, 1943. (f) The Adelaide Circulating Library at 30th June, 1941, contained 99,558 books. (g) Includes 4,994 volumes in Children's Branch and 10,003 in Children's Box Service. (h) Includes 8,241 volumes in the School Libraries Branch. (i) Includes 4,024 volumes in the Children's Branch.

(b) *New South Wales.* In connexion with the Country Lending Branch of the Sydney Public Library, it may be noted that books are forwarded on loan to State schools, to Schools of Arts and to individual students. During 1943-44, 61,405 books were lent to small State schools, 9,765 to Schools of Arts, while 55,702 reference works were lent to individual country students.

A special research staff attached to the Sydney Public Library gives valuable assistance in making readily available to inquirers the store of information contained in books, etc., which, owing to limitations of space, are not in open access.

The Mitchell Library in Sydney of more than 60,000 volumes and pamphlets, and 300 paintings, principally relating to Australasia, and valued at £100,000, was bequeathed to the trustees of the Public Library in 1907 by Mr. D. S. Mitchell, together with an endowment of £70,000. The testators stipulated that the regulations of the British Museum were to be adopted as far as practicable, hence the library is the resort of specialists. There are now 140,942 volumes in the library in addition to valuable manuscripts, collections of Australian postage and fiscal stamps, and various pictures, coins, etc.

Other important libraries in New South Wales are the Australian Museum, 31,582 volumes; Teachers' Colleges, 67,105; Technical Colleges, 32,829; Public Schools, 630,886; Railways' Institute, 149,631; Road Transport and Tramways Institute, 38,093; and the Cooper Library of the New South Wales Public School Teachers' Federation and the library at the National Herbarium, each of 10,000 volumes. At 30th June, 1944, the Parliamentary Library contained 92,900 volumes.

(c) *Victoria.* The Public Library of Victoria possesses not only a good reference collection but many unusual source materials for research. It is especially representative in the sections devoted to Art, Australian, Bibliography, English literature, Incunabula, Heraldry and Genealogy, History and Music. The historical collection of maps, plans, views and manuscripts of early Victoria is an important adjunct of the Library. In 1943 the Lending Branch lent 230,836 books including 67,555 to country individual borrowers. Sixty-three cases of books containing 3,162 volumes were lent to country mechanics' institutes and free libraries.

The Government Grant of £2,500 for country libraries was participated in by about 200 libraries. The maximum grant to any one Library was £100.

(d) *Queensland—Library Service.* In Queensland the Libraries Act 1943 constituted a Library Board "to attain efficient co-ordination and improvement of the library facilities of the State with the object of placing such facilities on a sound basis for the benefit and educational improvement of the citizens generally throughout the State". To the Board which has been appointed are entrusted the control and management of the Public Library and of branches which, under the Act, may be established in various parts of the State by the Governor-in-Council. It is expected that when the Act, which also provides for the establishment of library services by local authorities and for the preservation of public records, has been fully implemented the library system of the state will be well organized and of high standard.

During the war the Public Library maintained its position as a centre of adult education by co-operating with the Army Educational Services in supplying books to members of the forces.

Country readers may obtain the loan of educational books from the Public Library while the organization of the Schools of Arts in many parts of the State under the auspices of the School of Arts Association has led to an increase in their activities. When the Library Board has completed its preliminary work, country libraries will receive assistance that will help in the extension and co-ordination of Library services throughout the State.

The John Oxley Memorial Library, which is established and maintained as a Library of Queensland Literature, was established under the terms of a Declaration of Trust, dated 26th August, 1926. The principal function of the Library is to promote the study of Queensland authors of literature relating to Queensland. This Library has grown considerably and already has a fine collection.

(e) *South Australia—Public Library.* During the year ended 30th June, 1945, books added to the reference library numbered 3,502, making a total of 203,237. In addition there were 7,505 in the Symon Library, 13,717 in the Country Lending Service, 5,205 in the Children's Library, 12,045 in the Children's Box Service, making a total of 241,709 at 30th June, 1945.

Country Lending Service. During the year ended 30th June, 1945, 65,811 books were lent in response to 26,904 inquiries, and 2,845 new borrowers were enrolled, making a

total number of 8,296. Two new features introduced successfully are the circulation of school boxes, and books to individual children, 20,770 books being lent in boxes to 615 schools, and 11,216 lent to individual children.

Research Service. This service was established in a small way primarily as an aid to munition making. It has now a separate staff dealing with all technical and scientific inquiries, and is proving of infinite value to industry generally. More liberal lending facilities made available to the service are much appreciated. Inquiries received numbered 3,768 and 478 bibliographies were compiled. There were 779 photostats and interstate loans obtained, and 1,646 books and 1,601 periodicals were lent.

Archives. In 1921 the Archives Department of the Public Library of South Australia was established for the collection of original South Australian historical material. Legislation has been passed forbidding the destruction of government documents without reference to the Libraries Board. Considerable use is made of the collections, which on 30th June, 1945, consisted of 321,813 documents, 18,301 views, and 1,621 maps.

Children's Library. This is a model library co-operating closely with the schools. Class visits are encouraged and talks given. Instruction in library methods is given to teacher librarians and others.

Metropolitan Lending Library. The South Australian Government approved of the policy of inaugurating lending facilities, and voted money for the purpose, but owing to building difficulties the scheme has had to be delayed indefinitely.

Institute Association. In 1944 the Institute Association comprised 253 suburban and country libraries with 750,000 volumes.

(f) *Western Australia—Library Development.* During 1944 the Government appointed a Provisional Committee to report on the question of establishing Free Lending Libraries in country centres. The scheme outlined in its report of January, 1945, was accepted by the Government and the Committee was made a permanent Committee. To July, 1945, 8 of such libraries had been started, 6 more were expected to be in operation at the end of August, 1945, and 10 others had signified their intention of joining the scheme. The scheme is worked through the Municipalities and Road Boards, and the Government, through the Committee, subsidizes annual grants made by Local Authorities up to a maximum of £50 per annum. In each case the Local Authority makes its own arrangements for the supervision and lending of books.

(g) *Tasmania.* The State Library of Tasmania, which is free, contains a reference and periodicals section, a lending department and a junior branch and in addition gives free of charge, on the £1 for £1 basis, a service of books both fiction and non-fiction to all Municipalities that have adopted the Libraries Act and rated themselves for local free library service. To date 29 municipalities, including Launceston which receives its subsidy in cash, have adopted the Act and free library service is being given to 80 per cent. of the population of the State. In addition an individual service is provided by post or freight to any person in Tasmania who applies for it.

Over 10,000 books were added to the State Library during 1944-45 at a cost of £7,299 and the rate of accession is growing. A considerable extension was made during 1944-45 to the children's library services, but through the Lady Clark Memorial Children's Library Appeal, almost £15,000 has already been collected to inaugurate a comprehensive State-wide library service for children which will begin during 1945.

The Launceston Mechanics Institute and Public Library has been reconstituted as a free library under the control of the Launceston City Council and it also is establishing a junior branch.

(iii) *University Libraries.* The libraries of the Australian universities perform two important functions in Australian life and development; they provide material not only for the education of graduates and undergraduates, but for scholars, research workers and practical investigators all over the continent, since no genuine student is refused access to them. Much of the material they contain is not available elsewhere, for although in most cases smaller, they are in many directions more highly specialized than the public libraries, whose resources they are thus able to supplement. They lend to one another and to State and private institutions as well as to individual investigators, and they both lend to and borrow from the public and scientific libraries. Each of

them is governed by a librarian, who is responsible as a rule to an executive sub-committee and a committee which is practically co-extensive with the professorial staff. In size the Library of the University of Sydney is the third in Australia, and the Libraries of the Universities of Adelaide and Melbourne are respectively seventh and eighth. The following table shows the sizes and rates of growth and expenditure of the Australian university libraries; it is impossible to give borrowing statistics, as they differ too widely to be comparable without much explanation.

UNIVERSITY LIBRARIES, 1943.

University.	Volumes.	Accessions during year.	Expenditure.
	No.	No.	£
Sydney	277,485	3,937	9,107
Melbourne	124,228	2,485	6,352
Queensland	78,077	4,111	2,943
Adelaide	138,145	3,762	6,719
Western Australia	68,384	1,679	3,575
Tasmania	51,547	3,504	988
New England University College	10,095	826	586
Canberra University College	1,889	235	164

The first books were bought for the Library of the University of Sydney as early as 1851; only since 1910, however, has it possessed a building of its own. It is named after its principal benefactor, Thomas Fisher, who bequeathed to it in 1885 the sum of £30,000. It contains an up-to-date bookstack of glass and steel and a fine reading room in which since the beginning of 1941 about 18,000 volumes of the collection have been made available on open access shelves. In addition members of the teaching staff, and certain classes of undergraduates, are admitted to the bookstacks; all readers are encouraged to borrow freely. The Library possesses a large number of periodicals, especially scientific, valuable collections of seventeenth century pamphlets and Elizabethan translations from the classics, and an extensive collection of Australian literature. Besides a medical branch, there are a number of departmental libraries.

Early in 1854 the Council of the University of Melbourne made its first allocation for books, but the Library was housed in temporary and unsatisfactory quarters for a number of years, and consequently growth was slow and complaints were frequent. In recent years the University authorities have treated the Library generously, and there have been some welcome benefactions, but accommodation is insufficient and a new library building is one of the most pressing needs of the University. The W. L. Baillieu Trust has given the first instalment of a £100,000 gift with which a new library will be built. All the books are accessible on open shelves and though the Library is intended primarily for reference purposes, borrowing, except of text-books and certain valuable volumes, is made as easy as possible. The Library is administered from the centrally-situated general library; there is a large medical branch library specially rich in periodicals, and smaller branch libraries are accommodated in some of the science departments.

The Library of the University of Queensland began 33 years ago with £3,000 worth of books, £2,000 having been raised by public subscription and £1,000 granted by the Government. At present it shares a building with a science department. There are several departmental libraries.

The Adelaide University Library bears the title of its original benefactor, Robert Barr Smith, who, with members of this family in and after 1892, gave the University about £50,000 for library purposes. Some 20,000 volumes are shelved in the reading room and are available to the ordinary student. Up-to-date steel bookstacks provide accommodation for about 100,000 volumes, and additions now planned will be capable of housing a further 500,000. Borrowing facilities are available to all matriculated students, to country students and to graduates. There are medical and law departmental libraries. The medical library has on permanent loan the collection of the Institute of Medical and Veterinary Science, and also incorporates the library of the British Medical Association (South Australian Branch).

In the University of Western Australia the first permanent library staff was not appointed until 1927. A special feature is the use made of student co-operation. The whole collection is accessible on open shelves, and there are several departmental libraries.

The Library of the University of Tasmania was founded in 1893, but for many years it comprised little more than a collection of text-books. In 1913 a substantial increase of funds was allotted and important gifts were received. In 1919 it was organized for the first time in accordance with modern library practice. Its growth has been steady since 1925.

The New England University College Library was founded in 1938, and bears the name of its first benefactor, Sir William Dixon. At the end of 1944 it contained 11,362 volumes which are on open shelves.

The Canberra University College Library was established in 1938. At the end of 1944 it contained 2,894 volumes, which are on open shelves; reference books may be borrowed.

3. **Public Museums and Art Galleries.**—Previous issues of the Official Year Book contained a brief description of the public museums and art galleries in each State (see No. 22, pp. 457-9), but considerations of space preclude the incorporation of this information in the present volume.

4. **State Expenditure on Education, Science and Art.**—The expenditure in each State on education, science and art during the years 1942-43 and 1943-44 is shown in the following tables. Owing to the details not being available in all States, the figures exclude officers' pensions, pay-roll tax, and interest and sinking fund on capital expended on buildings. The cost of the medical inspection of school children is also excluded, as this service is more appropriately classified under Public Health, etc. :—

STATE EXPENDITURE ON EDUCATION, SCIENCE AND ART.

State.	Expenditure from—				Receipts.	Net Expenditure
	Revenue.	Loan.	Other Funds.	Total.		
1942-43.						
	£	£	£	£	£	£
New South Wales	6,088,882	137,625	..	6,226,507	178,496	6,048,011
Victoria..	3,386,800	97,005	1,243	3,485,048	70,067	3,414,981
Queensland	1,807,551	30,324	..	1,837,875	10,431	1,818,442
South Australia ..	1,139,157	35,735	..	1,174,892	35,585	1,139,307
Western Australia	914,422	10,913	..	925,335	30,858	894,477
Tasmania ..	488,138	21,485	..	509,623	1,184	508,439
Total ..	13,824,950	333,087	1,251	14,159,288	335,621	13,823,667

1943-44.						
	£	£	£	£	£	£
New South Wales	6,348,959	179,515	..	6,528,474	267,560	6,260,914
Victoria ..	3,653,684	70,072	2,083	3,734,839	78,605	3,656,234
Queensland ..	1,910,928	29,689	..	1,940,617	23,477	1,923,140
South Australia ..	1,251,868	66,970	..	1,318,838	31,557	1,287,281
Western Australia	979,465	18,651	..	998,116	33,896	964,220
Tasmania ..	519,708	33,958	..	553,666	1,138	552,528
Total ..	14,670,612	407,855	2,083	15,080,550	436,233	14,644,317

(a) In addition, fees in respect of technical education amounting to £80,619 in 1942-43 and £101,662 in 1943-44 were received and spent by the School Councils.

CHAPTER VII.

PUBLIC JUSTICE.

§ 1. Lower (Magistrates') Courts.

1. **General.**—In considering the criminal returns of the various States, due allowance must be made for certain factors, such as the relative powers of the higher and lower courts. In the case of lower courts, the actual number of laws in each State, the breach of which renders a person liable to fine or imprisonment, must be taken into account. Again, the attitude of the magistracy and police towards certain classes of offences is a factor, for in the case of liquor laws, or laws connected with vagrancy or gaming, the views of the magistrates, and instructions issued to the police, may be responsible for considerable variations in the returns. The strength and distribution of the police forces, and the age-constitution and distribution of the population of the States, also influence the results. Due weight should be given also to the prevalence of undetected crime, but information on this point is not available for all States. It may be mentioned that each State has its own separate judicial system, the Commonwealth jurisdiction being confined to the High Court of Australia, which is largely a Court of Appeal intermediate to the Privy Council although it has also original jurisdiction, the Commonwealth Court of Conciliation and Arbitration and the Commonwealth Court of Bankruptcy. Full particulars regarding the judicial power of the Commonwealth will be found in Chapter III. of the Commonwealth Constitution which appears on page 18 of this issue.

2. **Powers of the Magistrates.**—Preceding issues of the Official Year Book contain a brief statement of the powers of the magistrates in the various States (see No. 22, p. 462), but this information is not repeated in the present volume.

3. **Cases Tried at Magistrates' Courts.**—The total number of cases tried at Magistrates' Courts in each State is given below for the five years 1939 to 1943:—

CASES TRIED AT MAGISTRATES' COURTS.

State or Territory.	1939.	1940.	1941.	1942.	1943.
New South Wales	144,848	149,421	133,470	154,531	135,503
Victoria	82,858	86,287	77,003	74,498	71,093
Queensland(a)	32,501	28,653	25,783	23,451	24,397
South Australia	22,776	20,637	24,362	(a)24,876	(a)24,058
Western Australia	24,111	23,095	21,667	24,091	22,085
Tasmania	9,498	7,548	7,479	7,427	6,508
Northern Territory(a)	1,494	1,835	1,168	374	540
Australian Capital Territory	284	306	256	376	419
Total	318,370	317,782	291,188	309,624	284,603

(a) Year ended 30th June following.

Investigation of the returns shows that considerable variations in the figures for single States are occasioned by breaches of new Acts, or the more stringent enforcement of the provisions of existing Acts. Any deductions drawn from the total returns as to the increase or decrease of criminality should, therefore, be based upon a careful analysis of the detailed list of offences.

4. **Convictions.**—The figures given in the tabulation above include, of course, a number of people who were wrongly charged, and, statistically, are not of general importance. A classification of convictions of persons who appeared before the lower courts in each State during 1942 and 1943 is given in the following table :—

CONVICTIONS AT MAGISTRATES' COURTS.

Offence.	N.S.W.	Vic.	Qld.(a)	S.A.(a)	W.A.	Tas.	N.T.(a)	A.C.T.	Aust.
1942.									
Against the Person ..	1,914	912	254	207	243	169	17	77	3,793
Against Property ..	12,426	5,920	2,673	1,392	2,726	680	52	141	26,010
Forgery and Offences against the Currency ..	46	11	2	4	2	..	6	..	71
Against Good Order ..	52,618	19,661	10,349	6,367	6,541	1,020	20	91	96,667
Other Miscellaneous ..	73,616	40,007	7,412	14,540	13,412	3,948	202	52	153,189
Total ..	140,620	66,511	20,690	22,510	22,924	5,817	297	361	279,730
1943.									
Against the Person ..	2,065	811	265	252	242	116	28	75	3,854
Against Property ..	13,420	5,655	3,088	1,415	2,885	677	67	176	27,383
Forgery and Offences against the Currency ..	51	5	..	2	1	2	..	..	61
Against Good Order ..	50,775	19,498	10,310	6,357	5,416	1,042	278	100	93,776
Other Miscellaneous ..	52,055	36,392	7,931	14,053	12,298	3,285	49	57	126,120
Total ..	118,366	62,361	21,594	22,079	20,842	5,122	422	408	251,194

(a) Year ended 30th June, following.

The following table shows the number of convictions in each year from 1939 to 1943 :—

CONVICTIONS AT MAGISTRATES' COURTS.

State or Territory.	1939.	1940.	1941.	1942.	1943.
New South Wales ..	126,353	131,891	119,735	140,620	118,366
Victoria ..	72,186	75,712	67,520	66,511	62,361
Queensland(a) ..	28,920	25,640	23,297	20,690	21,594
South Australia ..	20,429	18,364	21,990	(a) 22,510	(a) 22,079
Western Australia ..	22,539	21,705	20,435	22,924	20,842
Tasmania ..	8,722	7,078	5,721	5,817	5,122
Northern Territory(a) ..	1,394	1,724	1,053	297	422
Australian Capital Territory ..	260	273	234	361	408
Total ..	280,803	282,387	259,985	279,730	251,194

(a) Year ended 30th June following.

5. **Convictions for Serious Crime.**—While the figures given in the preceding table refer to the entire body of convictions, the fact must not be overlooked that they include a large proportion of offences of a technical nature, many of them unwittingly committed, against various Acts of Parliament. Cases of drunkenness and minor breaches of good order, which, if they can be said to come within the category of crime at all, at least do so in a very different sense from some other offences, also help to swell the list. The following table has therefore been prepared for the purpose of showing the convictions at magistrates' courts for what may be regarded as the more serious offences, i.e., against the person and property, either separately or conjointly, and forgery and offences against the currency. Owing to the smallness of the population, the rates for the Northern and the Australian Capital Territories are subject to considerable variation.

CONVICTIONS FOR SERIOUS CRIME AT MAGISTRATES' COURTS.

State or Territory.	1939.	1940.	1941.	1942.	1943.
NUMBER.					
New South Wales ..	12,724	13,133	11,707	14,386	15,536
Victoria.. ..	5,727	5,653	5,429	6,843	6,471
Queensland(a) ..	2,402	2,275	2,165	2,929	3,353
South Australia ..	1,224	1,340	1,379	(a) 1,603	(a) 1,669
Western Australia ..	2,614	2,601	2,330	2,971	3,128
Tasmania	959	846	764	849	795
Northern Territory(a) ..	44	60	66	75	95
Australian Capital Territory	59	35	68	218	251
Total	25,753	25,943	23,908	29,874	31,298

PER 10,000 OF THE POPULATION.

New South Wales ..	46.30	47.37	41.94	51.05	54.68
Victoria.. ..	30.43	29.69	28.03	34.83	32.68
Queensland(a) ..	23.54	22.04	20.85	28.08	31.69
South Australia ..	20.52	22.37	22.90	(a) 26.15	(a) 26.98
Western Australia ..	56.15	55.23	49.17	62.06	65.22
Tasmania	40.28	35.18	31.86	35.27	32.80
Northern Territory(a) ..	70.81	95.27	118.41	151.33	184.29
Australian Capital Territory	48.79	25.82	46.24	149.04	177.83
Total	36.95	36.86	33.66	41.62	43.23

(a) Year ended 30th June following.

6. **Rate of Convictions, 1881 to 1943.**—Statistics of convictions reveal a consistent increase in the rate of serious crime from 1925 to 1931, when 37.1 convictions per 10,000 of the population were recorded. Following this comparatively high figure the rate declined to 32.4 in 1933 but increased considerably to 37.0 in 1939. In 1941 the rate declined to 33.7 but rose in the next two years to 43.2, the highest recorded since 1891, when the average number of convictions was 44.8. The rate of convictions over a series of years is included below; only the more serious offences particularized in the preceding sub-section have been taken into consideration.

RATE OF CONVICTIONS FOR SERIOUS CRIME AT MAGISTRATES' COURTS : AUSTRALIA.

Year	1881.	1891.	1901.	1911.	1921.	1931.	1941.	1943.
Convictions per 10,000 persons	69.3	44.8	29.1	24.6	29.2	37.1	33.7	43.2

7. **Committals to Superior Courts.**—(i) *General.* In a previous paragraph it has been pointed out that comparisons of criminality based on a consideration of the total returns from magistrates' courts are somewhat inadequate, inasmuch as the figures include numbers of cases which are merely technical breaches of laws having in some instances a purely local significance. The committals to higher courts give a better basis of comparison, although even in this connexion allowances must be made for the

want of uniformity in jurisdiction. A classification of the offences for which persons appearing in the lower courts were committed to higher courts in each State in 1942 and 1943 is shown in the following tables :—

COMMITTALS TO SUPERIOR COURTS.

Offence.	N.S.W.	Vic.	Qld.(a)	S.A.(a)	W.A.	Tas.	N.T.(a)	A.C.T.	Aust.
1942.									
Against the Person ..	616	225	132	144	37	22	9	5	1,190
Against Property ..	1,411	1,132	125	146	82	15	15	..	2,926
Forgery and Offences against the Currency ..	27	27	2	18	2	..	4	..	80
Against Good Order ..	18	2	1	9	..	7	..	..	37
Other Miscellaneous ..	47	36	6	12	4	5	..	..	110
Total ..	2,119	1,422	266	329	125	49	28	5	4,343

1943.									
Against the Person ..	597	264	143	137	56	17	22	..	1,236
Against Property ..	2,029	1,254	146	97	105	20	9	..	3,660
Forgery and Offences against the Currency ..	70	55	5	14	1	3	..	..	148
Against Good Order ..	13	4	4	4	4	1	2	..	32
Other Miscellaneous ..	102	67	13	22	4	1	..	..	209
Total ..	2,811	1,644	311	274	170	42	33	..	5,285

(a) Year ended 30th June following.

The following table gives the number of committals in each year from 1939 to 1943, with the rate of such committals per 10,000 of the population :—

COMMITTALS TO SUPERIOR COURTS.

State or Territory.	1939.	1940.	1941.	1942.	1943.
NUMBER.					
New South Wales ..	2,288	2,211	1,717	2,119	2,811
Victoria ..	1,777	1,543	1,400	1,422	1,644
Queensland (a) ..	359	228	276	266	311
South Australia ..	259	199	283	(a) 329	(a) 274
Western Australia ..	129	211	114	125	170
Tasmania ..	82	85	89	49	42
Northern Territory (a) ..	12	17	17	28	33
Australian Capital Territory ..	18	5	10	5	..
Total ..	4,924	4,499	3,906	4,343	5,285

PER 10,000 OF THE POPULATION.					
New South Wales ..	8.3	8.0	6.2	7.5	9.9
Victoria ..	9.4	8.1	7.2	7.2	8.3
Queensland (a) ..	3.5	2.2	2.7	2.6	2.9
South Australia ..	4.3	3.3	4.7	(a) 5.4	(a) 4.4
Western Australia ..	2.8	4.5	2.4	2.6	3.5
Tasmania ..	3.4	3.5	3.7	2.0	1.7
Northern Territory (a) ..	19.3	27.0	30.5	56.5	64.0
Australian Capital Territory ..	15.0	3.7	6.8	3.4	..
Total ..	7.1	6.3	5.5	6.1	7.3

(a) Year ended 30th June following.

(ii) *Rate of Committals since 1881.* With occasional variations the rate of committals for serious crime has remained fairly stable during recent years, and, if the comparison be carried back further, the movement in the rate has undergone very little change during the present century. The rate at intervals since 1881 is as follows :—

RATE OF COMMITTALS TO SUPERIOR COURTS : AUSTRALIA.

Year ..	1881.	1891.	1901.	1911.	1921.	1931.	1941.	1943.
Committals per 10,000 persons	12	11	8	6	7	8	6	7

8. Drunkenness.—(i) *Cases and Convictions.* The number of cases of drunkenness and the convictions recorded in connexion therewith during the period 1939 to 1943 are given in the following table:—

DRUNKENNESS: CASES AND CONVICTIONS.

State or Territory.	1939.		1940.		1941.		1942.		1943.	
	Cases.	Convictions.	Cases.	Convictions.	Cases.	Convictions.	Cases.	Convictions.	Cases.	Convictions.
New South Wales	32,472	32,405	34,710	34,575	34,683	34,637	34,909	34,870	34,929	34,906
Victoria ..	11,609	11,421	11,619	11,440	12,064	11,899	12,886	12,749	12,561	12,444
Queensland (a) ..	11,202	11,118	9,558	9,422	10,124	10,025	8,527	8,439	8,367	8,288
South Australia ..	2,607	2,597	2,594	2,580	3,837	3,818	a 4,601	a 4,588	a 4,636	a 4,618
Western Australia ..	2,681	2,656	2,860	2,833	3,290	3,262	4,809	4,778	3,855	3,821
Tasmania ..	411	407	336	333	282	250	264	252	396	367
Northern Terr. (a) ..	686	677	522	517	492	479	126	123	100	100
Aust. Cap. Terr.	114	114	109	108	80	80	65	65	37	37
Total ..	61,782	61,397	62,308	61,808	64,852	64,450	66,187	65,864	64,881	64,581

(a) Year ended 30th June following.

Under the heading "drunkenness" are included cases of ordinary drunkenness, drunkenness and disorderliness, and habitual drunkenness.

The number of convictions is, as might naturally be expected, almost identical with the number of cases.

(ii) *Convictions per 10,000 of Population.* The convictions for drunkenness per 10,000 of the population during each of the years from 1939 to 1943 are given hereunder:—

CONVICTIONS FOR DRUNKENNESS PER 10,000 OF THE POPULATION.

State or Territory.	1939	1940	1941.	1942.	1943
New South Wales ..	117.9	124.7	124.1	123.7	122.9
Victoria ..	60.7	60.1	61.4	64.9	62.8
Queensland(a) ..	109.0	91.3	96.6	80.9	78.3
South Australia ..	43.6	43.1	63.4	(a) 74.9	(a) 74.7
Western Australia ..	57.1	60.2	68.8	99.8	79.7
Tasmania ..	17.1	13.9	10.4	10.5	15.1
Australian Capital Territory	94.3	79.7	54.4	44.4	26.2
Total ..	88.1	87.8	90.8	91.8	89.2

(a) Year ended 30th June following.

In the twenties the convictions for drunkenness averaged approximately 100 per 10,000 inhabitants, but the rate fell away considerably during the following years and was only 57.1 in 1931. With the improvement in the social condition of the people following that year, the average rose steadily to 84.0 in 1930, declined somewhat during the next two years, and rose to 91.8 in 1942, but decreased to 89.2 in 1943. Figures for the consumption of beer have followed a similar course. From an average of 11.33 gallons per head of the population consumed for some years prior to 1931-32, when the amount declined to 7.32 gallons, the average rose each year to 13.76 gallons in 1941-42, but declined in 1942-43 to 12.58 gallons. In 1943-44 the consumption rose slightly to 12.91 gallons and to 12.94 gallons in 1944-45.

The convictions for drunkenness taken by themselves are not altogether a satisfactory test of the relative sobriety of the inhabitants of each State, inasmuch as several important factors must be taken into consideration. The age and sex constitution

of the people, for example, are by no means identical in all the States. Another factor is the distribution of the population. Arrest or summons for drunkenness obviously is more likely in the regions densely populated than in those sparsely populated. In addition allowance must be made for the attitude of the magistracy, the police and the general public in regard to the offence. Due account also must be taken of the effect of legislation dealing with the limitation of hours during which liquor may be sold in hotels.

(iii) *Consumption of Intoxicants.* The following table shows the consumption of spirits, wine and beer per head of the population in Australia during each year of the five-yearly period 1940-41 to 1944-45:—

CONSUMPTION OF INTOXICANTS IN AUSTRALIA.

Year.	Consumption per Head of Population.		
	Spirits.	Wine.	Beer.
	Imp. Galls.	Imp. Galls.	Imp. Galls.
1940-41	0.22	0.36	13.71
1941-42	0.20		13.76
1942-43	0.22		12.58
1943-44	0.23		12.91
1944-45	0.23		12.94

(iv) *Treatment of Drunkenness.* (a) *General.* Though the problem of the correct method of dealing with dipsomania is by no means an easy one, it seems fairly clear that the present plan of bringing offenders before magistrates, and subjecting them to the penalty of imprisonment or fine, has little deterrent effect, as the same offenders are constantly reappearing before the courts. During recent years the dangers of moral contamination in this way have been more accurately appreciated, and a system of classification of prisoners has been adopted whereby the petty offender is as far as possible kept from association with those convicted of more serious offences.

(b) *Remedial.* Legislation has been passed in each State providing for the commitment of inebriates to special Government institutions. The laws in the various States are as follows:—New South Wales, Inebriates Act 1912; Victoria, Inebriates Act 1928; Queensland, Inebriate Institutions Act 1896; South Australia, Inebriates Act 1908-1934, Convicted Inebriates Act 1913-1934; Western Australia, Inebriates Act 1912-1919; Tasmania, Inebriates Act 1885, Inebriate Hospitals Act 1892. Curative work was first undertaken by the Government of New South Wales in 1907. In most cases the institutes are connected with the gaols, and, naturally, custodial measures are still a strong feature in their management; nevertheless, the results of remedial measures have been encouraging.

9. *First Offenders.*—In all the States, statutes dealing with first offenders have been in force for many years. Existing legislation is as follows:—New South Wales, Crimes Act 1900 amended in 1924 and 1929, First Offenders (Women) Act 1919; Victoria, Crimes Act 1928; Queensland, Criminal Code Acts 1899 to 1945; South Australia, Offenders Probation Act 1913-1934; Western Australia, Criminal Code Act 1913-1942; Tasmania, Probation of Offenders Act 1934. The method of procedure is practically the same in all cases, i.e., with regard to most first offenders convicted of a minor offence the magistrate or judge is empowered to allow the offender to go free on recognizances being entered into for his good behaviour for a certain period. In practice, this humane law has been found to work excellently, very few of those convicted under it having been found to relapse into crime.

10. *Children's Courts.*—Special courts for the trial of juvenile offenders have been established in New South Wales, Victoria, Queensland, Western Australia and Tasmania, while Children's Courts, although not under that title, are provided for by the Maintenance Act 1926-1941 in South Australia. The object of these courts is to avoid, as far as possible the unpleasant surroundings of the ordinary police court.

§ 2. Superior Courts.

1. Convictions at Superior Courts.—The following is a list of the principal offences for which persons were convicted in superior courts in each State and Territory during 1943 and in Australia as a whole in that year and in 1942 :—

CONVICTIONS AT SUPERIOR COURTS, 1943.

Offences.	N.S.W. (a)	Vic.	Qld. (a)	S.A.	W.A.	Tas.	N.T. (a)	A.C.T.	Australia.	
									1943.	1942.
I. OFFENCES AGAINST THE PERSON.										
Murder	1	2	2	..	3	1	3	..	12	16
Attempted Murder .. .. .	..	..	..	..	..	..	2	..	2	4
Manslaughter	13	4	4	..	1	1	..	..	23	19
Rape	3	4	1	4	4	1	7	..	24	14
Other Offences against Females	57	50	27	30	7	8	..	..	179	148
Unnatural Offences	47	41	17	15	6	2	1	..	129	112
Abortion and Attempts to Procure	10	4	2	7	..	..	..	..	23	20
Bigamy	54	48	17	10	4	1	..	..	134	88
Suicide, Attempted .. .. .	..	1	..	..	..	1	..	..	2	7
Assault, Aggravated .. .. .	..	..	11	3	5	3	3	..	25	25
Assault, Common	22	6	6	2	..	..	1	..	37	49
Other Offences against the Person	59	20	5	6	5	2	2	..	99	129
Total	266	180	92	77	35	20	19	..	689	633
II. OFFENCES AGAINST PROPERTY.										
Burglary and Housebreaking	491	267	46	25	30	7	2	..	868	748
Robbery and Stealing from the Person	83	21	19	8	11	5	1	..	148	134
Horse-stealing .. .. .	..	..	6	..	..	..	..	..	6	3
Cattle-stealing	1	3	2	..	..	..	..	..	6	20
Sheep-stealing .. .. .	..	2	..	2	1	..	..	..	5	6
Embezzlement and Stealing by Servants	16	15	4	6	1	..	..	..	42	46
Larceny, Other	95	217	9	14	10	..	7	..	352	265
Unlawfully using Horses, Cattle and Vehicles	2	..	1	..	..	..	..	..	3	..
Receiving	92	46	3	7	1	..	..	..	149	96
Fraud and False Pretences	29	18	5	3	..	1	..	..	56	47
Arson	5	1	4	3	..	..	..	..	13	4
Malicious Damage	1	1	..	..	..	..	..	..	2	14
Other Offences against Property	14	6	..	32	1	..	..	..	53	49
Total	829	597	99	100	55	13	10	..	1,703	1,432
III. FORGERY AND OFFENCES AGAINST THE CURRENCY.										
Forgery and Uttering Forged Instruments	5	17	4	15	1	..	..	..	42	28
Offences in relation to the Currency	1	..	..	..	..	..	..	..	1	..
Total	6	17	4	15	1	..	..	..	43	28
IV. OFFENCES AGAINST GOOD ORDER.										
.. .. .	8	1	1	1	..	2	..	..	13	13
V. OTHER MISCELLANEOUS.										
Conspiracy	17	..	2	3	..	..	..	..	22	26
Perjury and Subornation	3	9	1	..	2	..	..	..	15	11
Other Offences	1	22	1	4	..	..	..	..	28	26
Total	21	31	4	7	2	..	..	..	65	63
Grand Total	1,130	826	200	200	93	35	29	..	2,513	2,166

(a) Year ended 30th June, 1944.

The number of convictions at superior courts and the rate per 10,000 of the population are given below for each of the years 1939 to 1943 :—

CONVICTIONS AT SUPERIOR COURTS.

State or Territory.	1939.	1940.	1941.	1942.	1943
NUMBER.					
New South Wales(a) ..	982	861	886	941	1,130
Victoria	690	651	705	721	826
Queensland(a)	214	145	151	155	200
South Australia	179	163	177	211	200
Western Australia ..	71	84	65	64	93
Tasmania	39	59	28	39	35
Northern Territory(a) ..	11	36	26	35	29
Australian Capital Territory	14	4	3	3	..
Total	2,200	2,003	2,041	2,169	2,513

PER 10,000 OF THE POPULATION.

New South Wales(a) ..	3.6	3.1	3.2	3.3	4.0
Victoria	3.7	3.4	3.6	3.7	4.2
Queensland(a)	2.1	1.4	1.5	1.5	1.9
South Australia	3.0	2.7	2.9	3.5	3.3
Western Australia ..	1.5	1.8	1.4	1.3	1.9
Tasmania	1.6	2.5	1.2	1.6	1.4
Northern Territory(a) ..	17.7	57.2	46.7	70.6	56.3
Australian Capital Territory	11.6	3.0	2.0	2.1	..
Total	3.2	2.8	2.9	3.0	4.0

(a) Year ended 30th June following.

The rate of convictions 2.3 per 10,000 of the population in 1936 was the lowest on record, but it increased to 3.2 in 1939, fell slightly to 2.8 in 1940 and rose during each of the next three years to 4.0 in 1943. Owing to the smallness of the population and the particular conditions prevailing there, the rates for the Territories naturally show considerable variation.

2. **Habitual Offenders.**—Some account of the methods adopted in each State in connexion with habitual offenders is given in preceding issues of the Official Year Book (see No. 22, pp. 469-70).

3. **Capital Punishment.**—There were five executions in Australia during the period 1937 to 1943. Two took place in New South Wales (one in 1937-38 and one in 1939-40) and three in Victoria (two in 1939 and one in 1941).

Under the Criminal Code Amendment Act 1922 capital punishment was abolished in Queensland.

In the early days of the history of Australia the penalty of death was attached to a large number of offences, many of which at the present time would be dealt with in the lower or magistrates' court. With the growth of settlement and the general amelioration in social and moral conditions, the list was, however, considerably curtailed, and the existing tendency is practically to restrict death sentences to cases of murder. It may be stated that in cases of rape, which is a capital offence in some of the Australian States, the penalty has been but sparingly inflicted during the last few years. Juries are reputed to be loth to convict on this charge, owing to the uncertainty whether sentence of death will be carried out.

The average annual number of executions in Australia from 1861 to 1880 was 9; from 1881 to 1900, 6; from 1901 to 1910, 4; from 1911 to 1920, 2; from 1921 to 1930, 2; and from 1931 to 1940, 1.

§ 3. Civil Courts.

1. Lower Courts.—The total number of complaints entered and the amounts awarded to plaintiffs during 1942 and 1943 are given in the following table. Particulars for earlier years appear in preceding issues of the Official Year Book.

CIVIL CASES AT LOWER COURTS.

State.	1942.	1943.	State or Territory.	1942.	1943.
N.S.W. .. {	Cases No. 40,132	28,725	Tas. .. {	Cases No. 10,843	8,620
	Amount £ 207,170	141,049		Amount £ 39,704	25,870
Victoria .. {	Cases No. 52,786	36,667	N. Ter.(a) {	Cases No. ..	20
	Amount £ 351,886	228,572		Amount £ ..	29
Qld.(a) .. {	Cases No. 6,359	4,185	A.C.T. .. {	Cases No. 332	102
	Amount £ 80,346	51,160		Amount £ 2,641	1,566
S. Aus. .. {	Cases No. 16,259	12,184			
	Amount £ 93,082	61,685			
W. Aus... {	Cases No. 18,924	13,771	Total .. {	Cases No. 145,635	104,274
	Amount £ 86,046	49,252		Amount £ 860,875	559,183

(a) Year ended 30th June following.

The figures just given represent the returns from the Small Debts Courts in New South Wales, Petty Session Courts in Victoria, Magistrates' Courts in Queensland, Local Courts of South Australia and Western Australia, Courts of Requests in Tasmania, Courts of Summary Jurisdiction in Northern Territory and Court of Petty Sessions in the Australian Capital Territory.

2. **Superior Courts.**—In the next table will be found the transactions on the civil side in the Superior Courts during 1942 and 1943. The particulars given below include the number and amount of judgments entered by default or confession, or agreement, and differ from those in issues of the Official Year Book prior to No. 29, which related in most States only to cases actually tried during the year.

The New South Wales returns refer to judgments in the District Courts only, and exclude 1,097 judgments in 1942 and 758 judgments in 1943 signed in the Supreme Court, for which the amounts entered are not available.

CIVIL CASES AT SUPERIOR COURTS.

State.	1942.	1943.	State or Territory.	1942.	1943.
N.S.W. .. { Causes No. 4,081 2,756			W. Aust. ^b { Causes No. 80 70		
.. { Amount £ 231,398 160,929			.. { Amount £ 155,136 27,582		
Victoria.. { Causes No. 1,756 2,065			Tas. .. { Causes No. 174 119		
.. { Amount £ 129,645 82,793			.. { Amount £ 20,508 12,453		
Qld.(a) .. { Causes No. 493 746			A.C.T. .. { Causes No. 3 1		
.. { Amount £ 31,360 14,545			.. { Amount £ 2,356 180		
S. Aust... { Causes No. 469 618			Total .. { Causes No. 7,056 6,375		
.. { Amount £ 40,419 16,899			.. { Amount £ 610,822 315,291		

(a) Year ended 30th June following.

(b) Judgments signed and entered.

3. **Divorces and Judicial Separations.**—The following table shows the number of petitions for divorce, nullity of marriage and judicial separations filed in each State during 1943, and the number of divorces made absolute and judicial separations granted:—

PETITIONS FOR DIVORCE, ETC., AND DIVORCES GRANTED, 1943.

State or Territory.	Petitions for Divorce, Nullity of Marriage and Judicial Separation.			Divorces and Nullity made absolute.	Judicial Separations.
	By Husband.	By Wife.	Total.		
New South Wales	1,628	1,410	3,038	1,837	3
Victoria	858	738	1,596	1,382	1
Queensland	257	198	455	441	3
South Australia	324	306	630	450	..
Western Australia	323	247	570	458	..
Tasmania	84	56	140	89	..
Northern Territory(a) ..	4	..	4	3	..
Australian Capital Territory ..	4	..	4	4	..
Total	3,482	2,955	6,437	4,664	7

(a) Year ended 30th June, 1944.

The grounds on which divorces, including nullity of marriage, and judicial separations were granted during 1942 and 1943 in each State are given in the following table :—

GROUND ON WHICH DIVORCES AND JUDICIAL SEPARATIONS WERE GRANTED.

Grounds on which Granted.	N.S.W.		Vic.		Qld.		S.A.		W.A.		Tas.		N.T.(a)		A.C.T.		Aust.	
	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.
1942.																		
Adultery ..	389	2	225	..	94	..	139	1	164	..	13	..	..	..	..	..	1,024	3
Bigamy ..	4	..	3	..	2	..	1	..	..	..	..	..	..	..	..	..	10	..
Cruelty ..	6	2	..	..	..	..	14	..	..	..	2	..	..	..	..	..	22	2
Cruelty and Drunkenness ..	22	..	6	..	..	..	..	..	..	..	..	..	..	..	..	..	28	..
Drunkenness ..	13	..	5	..	..	..	4	..	1	..	..	..	..	..	..	..	23	..
Desertion ..	1,161	..	699	2	143	..	129	1	170	..	67	..	..	..	..	..	2,369	3
Imprisonment for Crime ..	7	..	4	..	..	..	1	..	..	..	..	..	..	..	..	..	12	..
Insanity ..	..	..	10	..	6	..	7	..	7	..	1	..	..	..	..	..	31	..
Other ..	4	1	5	..	3	..	18	..	25	..	..	..	..	..	..	..	55	1
Total ..	1,606	5	957	2	248	..	313	2	367	..	83	..	..	..	..	..	3,574	9

1943.

Adultery ..	440	1	431	1	192	1	226	..	232	..	33	..	..	..	2	..	1,556	3
Bigamy ..	8	..	5	..	2	..	..	..	..	..	..	..	..	..	..	..	15	..
Cruelty ..	5	1	3	..	..	2	17	..	..	..	1	..	..	..	..	..	26	3
Cruelty and Drunkenness ..	29	..	5	..	..	..	..	..	..	..	..	..	..	..	..	..	31	..
Drunkenness ..	15	..	4	..	..	..	5	..	4	..	..	..	..	..	..	..	26	..
Desertion ..	1,330	1	914	..	239	..	177	..	182	..	54	..	3	..	2	..	2,901	1
Imprisonment for Crime ..	5	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	7	..
Insanity ..	..	..	12	..	3	..	6	..	6	..	1	..	..	..	..	..	28	..
Other ..	5	..	6	..	5	..	19	..	34	..	..	..	..	..	..	..	69	..
Total ..	1,837	3	1,382	1	441	3	450	..	458	..	89	..	3	..	4	..	4,664	7

(a) Year ended 30th June following.

The number of divorces and judicial separations in each State during the period 1939 to 1943 is shown below. The figures refer in the case of divorces to decrees made absolute in each year and include decrees for nullity of marriage.

DIVORCES AND JUDICIAL SEPARATIONS.

State or Territory.	1939.		1940.		1941.		1942.		1943.	
	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.
New South Wales ..	1,545	8	1,484	13	1,567	10	1,606	5	1,837	3
Victoria ..	801	4	821	1	837	5	957	2	1,382	1
Queensland ..	224	..	224	..	253	2	248	..	441	3
South Australia ..	243	..	309	5	273	1	313	2	450	..
Western Australia ..	234	..	246	..	292	..	367	..	458	..
Tasmania ..	86	..	83	..	84	..	83	..	89	..
Northern Territory (a) ..	2	..	8	..	4	..	..	..	3	..
Australian Capital Territory ..	6	1	5	1	2	..	..	..	4	..
Total ..	3,135	13	3,180	20	3,312	18	3,574	9	4,664	7

(a) Year ended 30th June following.

(b) Year ended 30th June, 1940.

The average annual number of divorces and judicial separations in Australia for decennial periods from 1871 to 1940 were as follows :—

DIVORCES AND JUDICIAL SEPARATIONS : AUSTRALIA.

Year ..	1871-80.	1881-90.	1891-1900.	1901-10.	1911-20.	1921-30.	1931-40.
Average ..	29	70	358	401	707	1,699	2,501

The following table shows the numbers and proportions of divorced males and females according to age in Australia at each Census from 1891 onwards. Prior to 1911 no record was made of divorced persons in South Australia, so that no definite comparisons can be made to extend beyond that date.

DIVORCED PERSONS : AGE DISTRIBUTION, AUSTRALIA.

Age last Birthday.	Number.					Proportion per 10,000 of the Sex.				
	1891. (a)	1901. (a)	1911.	1921.	1933.	1891. (a)	1901. (a)	1911.	1921.	1933.
MALES.										
Years—										
15-19	2	11	..	..	..	..	..	..
20-24	10	21	27	55	..	1	1	2	3
25-29	37	77	137	321	2	5	7	14	18
30-34	60	167	286	580	4	11	17	26	44
35-39	68	262	321	661	7	17	21	34	69
40-44	41	233	361	592	5	19	25	35	77
45-49	34	154	407	533	5	17	30	37	77
50-54	27	131	338	498	4	19	31	37	73
55-59	28	76	204	425	6	14	28	36	66
60-64	16	55	134	281	4	12	26	31	53
65-69	5	33	76	155	2	9	19	28	51
70-74	5	14	43	86	3	5	14	26	41
75-79	1	7	12	27	1	5	6	14	34
80-84	3	14	7	..	5	16	7	25
85 and over	1	6	10	..	5	17	2	17
Age 15 and over	332	1,234	2,368	4,233	10,298	3	10	15	23	42
FEMALES.										
Years—										
15-19	2	2	1	8	..	..	..	..	..
20-24	16	56	71	168	1	3	3	7	8
25-29	60	168	239	526	4	11	13	22	37
30-34	49	244	332	756	5	18	21	34	66
35-39	40	287	374	713	5	24	26	37	82
40-44	26	178	366	621	4	19	29	38	83
45-49	19	107	319	496	4	16	29	37	80
50-54	10	52	229	405	2	10	27	34	65
55-59	4	28	79	280	1	6	14	28	51
60-64	1	11	59	217	..	3	13	28	42
65-69	10	38	70	..	3	10	14	32
70-74	1	5	14	25	1	3	5	8	21
75-79	16	14	..	..	10	7	16
80-84	1	2	2	..	2	3	2	8
85 and over	1	3	4	..	..	3	5	5
Age 15 and over	228	1,149	2,140	4,304	10,888	3	10	15	24	46

(a) Excludes South Australia.

4. **Bankruptcies.**—Particulars relating to bankruptcy in each State up to the end of 1927 were incorporated under this heading in preceding issues of the Official Year Book prior to No. 23. Under the terms of the Bankruptcy Act 1924-1945 jurisdiction in bankruptcy and insolvency was taken over by the Commonwealth from 1st August, 1928.

The Act made provision for the declaration of districts, and each State (except Queensland and Northern Territory) has been declared a bankruptcy district. The bankruptcy district of New South Wales includes the Australian Capital Territory. Queensland has been divided into three districts corresponding to the three Supreme Court districts in that State. Operations under the Act for the year ended 31st July, 1945, are given in the following table. For the purposes of comparison, figures for each of the preceding two years are appended to the table.

COMMONWEALTH BANKRUPTCY ACT RETURNS, 1944-45.

Heading.	N.S.W.	Vic.	Qld.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Australia.
Sequestration Orders and Orders for Administration of Deceased Debtors' Estates	Number .. 58 Liabilities £ 92,356 Assets £ 13,143	32 11,747 3,915	9 3,061 2,015	20 134,866 37,725	3 3,953 2,130	6 1,786 447	..	128 247,769 59,375
Compositions, etc., after Bankruptcy	Number .. 4 Liabilities £ 9,832 Assets £ 3,350	3 1,105 358	4 4,850 950	4 3,072 246	.. 1,056 593	1 .. ..	..	16 19,915 5,497
Compositions, etc., without Bankruptcy	Number Liabilities £ .. Assets £ ..	.. .. ..	.. .. ..	17 27,494 29,726	2 1,474 1,671	.. .. ..	..	19 28,968 31,397
Deeds of Arrangement ..	Number .. 8 Liabilities £ 23,392 Assets £ 20,646	3 35,901 25,472	.. .. ..	.. .. ..	.. .. ..	.. .. ..	..	11 59,293 46,118
Total, 1944-45	Number .. 70 Liabilities £ 125,580 Assets £ 37,139	38 48,753 29,745	13 7,911 2,965	41 165,432 67,697	5 5,427 3,801	7 2,842 1,040	..	174 355,945 142,387
Total, 1943-44	Number .. 91 Liabilities £ 167,113 Assets £ 83,130	64 93,780 29,948	17 30,034 28,658	50 142,751 129,196	6 8,229 6,674	7 3,943 710	..	235 445,850 278,316
Total, 1942-43	Number .. 165 Liabilities £ 380,261 Assets £ 296,459	91 96,569 39,876	65 89,319 66,361	112 303,901 246,423	24 67,045 44,720	18 14,029 1,946	..	475 951,124 695,785

It is pointed out that the procedure in certain States has been influenced largely by the procedure in force prior to the passing of the Commonwealth Act, and that, therefore, no particular significance attaches to the large number of compositions, etc., in South Australia.

The Bankruptcy Act 1930 created a Commonwealth Court of Bankruptcy and provided for the appointment of a Judge or two Judges thereto. In 1930 a Commonwealth Judge in Bankruptcy was appointed in addition to the State Judges to deal with bankruptcy work in New South Wales and Victoria, as the Courts in these States were unable to cope with the business. All the bankruptcy cases in these States are now heard by the Commonwealth Judge, who sits in Sydney and Melbourne alternatively.

5. **High Court of Australia.**—Under the provisions of Section 71 of the Commonwealth Constitution, the judicial power of the Commonwealth is vested in a Supreme Court called the High Court of Australia, and in such other courts as the Parliament creates or invests with federal jurisdiction. The Commonwealth High Court possesses both original and appellate jurisdiction. The powers of the Court are defined in the Commonwealth Constitution, and in the Judiciary Act 1903-1940. The Court consists of a Chief Justice and five other judges. Sittings of the Court are held in the capitals of the various States as occasion may require. The High Court functions as a Court of Appeal for Australia. The following statement shows the transactions of the High Court for 1943 and 1944. Figures for previous years are given in preceding issues.

TRANSACTIONS OF COMMONWEALTH HIGH COURT.

Original Jurisdiction.	1943.	1944.	Appellate Jurisdiction.	1943.	1944.
Number of writs issued	62	83	Number of appeals set down for hearing ..	116	68
Number of causes entered for trial ..	20	23	Number allowed ..	52	17
Verdicts for plaintiffs	2	16	Number dismissed ..	44	41
Verdicts for defendants	6	7	Otherwise disposed of	4	6
Otherwise disposed of	8	8			
Amount of judgments	£5,000	£44,976			

During 1943 and 1944 respectively the Court dealt also with the following: Appeals from Assessments under Taxation Assessment Act, 21, 20; Special cases stated for the opinion of the Full Court, 18, 18; Applications for Prohibitions, etc., 28, 45. The fees collected amounted to £948 in 1943 and £972 in 1944.

6. Commonwealth Court of Conciliation and Arbitration.—A detailed statement regarding the operation of this Court, which was established under the Commonwealth Conciliation and Arbitration Act 1904-1934, will be found in Chapter XIII. "Labour, Wages and Prices", and in the *Labour Report*.

§ 4. Police and Prisons.

1. **General.**—Early issues of the Official Year Book (see No. 4. p. 918) contain a résumé of the evolution of the police force in Australia up to the passing of the Police Act 1862 (25 Vic. No. 16) in New South Wales.

2. **Strength of Police Force.**—(i) *General.* The strength of the police force in each State during the five years ended 1943 is given in the following table. It may be mentioned that the police forces (with the exception of the small body of Commonwealth police maintained in the Northern Territory and in the Australian Capital Territory) are entirely under State control, but, by arrangement, the Commonwealth Government utilizes their services in various directions, such as acting as aliens registration officers, and policing the liquid fuel regulations, etc.

STRENGTH OF POLICE FORCES.

State or Territory.	Area of State in Sq. Miles.	No. of Police.				
		1939.	1940.	1941.	1942.	1943.
New South Wales ..	309,433	3,907	3,964	3,902	3,817	3,711
Victoria ..	87,884	2,333	2,327	2,335	2,318	2,263
Queensland (a) ..	670,500	1,460	1,510	1,621	1,715	1,733
South Australia (a)	380,070	905	928	879	874	866
Western Australia (a)	975,920	600	614	638	623	582
Tasmania (a) ..	26,215	296	297	311	308	312
Northern Territory (a)	523,620	48	51	43	43	43
Aust. Cap. Territory	939	17	19	19	19	18
Total ..	2,974,581	9,566	9,710	9,748	9,717	9,528

(a) 30th June of year following.

The figures for New South Wales for 1943 exclude 18 "black trackers", (i.e., natives employed in detection of offenders chiefly in outlying districts) and 4 matrons, while the Victorian returns exclude 3 matrons and 1 black tracker. For Queensland the figures exclude 33 black trackers, for South Australia 5 wardresses and 3 black trackers, for Western Australia 36 black trackers and 5 female searchers, and for the Northern Territory 34 black trackers. Women police are employed in all the States, the respective numbers for 1943 included in the table above being :—New South Wales 18, Victoria 12, Queensland 9, South Australia 14, Western Australia 8, and Tasmania 5. Their work is mainly preventive, and the importance and usefulness of their duties have been referred to in very high terms by the Chief Officers of Police. In his Report for 1941 the Commissioner of Police in New South Wales refers to the valuable work performed by the women police in connexion with vice and crime particularly touching females and juveniles. They also carry out escort duties in respect of female prisoners. The experience in other States has been of a similar nature.

(ii) *Proportion to Population*.—The average number of persons in the various States to each police officer during the five years 1939 to 1943 is shown in the following table. In considering these figures allowance must, of course, be made for the unequal area and unequal distribution of the population of the various States.

POLICE FORCES IN RELATION TO POPULATION.

State or Territory.	Number of Persons per Sq. Mile, 1933 Census.	Persons to each Police Officer.				
		1939.	1940.	1941.	1942.	1943.
New South Wales	8.41	707	702	718	742	769
Victoria	20.71	809	824	836	849	879
Queensland (a)	1.41	704	688	643	613	615
South Australia (a)	1.53	662	648	694	704	718
Western Australia (a)	0.45	785	773	751	770	834
Tasmania (a)	8.68	809	805	774	787	787
Northern Territory (a)	0.01	130	124	111	120	120
Aust. Cap. Territory	9.52	745	741	757	772	794
Total	2.23	732	729	733	742	764

(a) 30th June of year following.

3. *Duties of the Police*.—In addition to the ordinary employment attaching to their office, the police are called upon to perform many duties which in other countries are carried out by various functionaries. Thus, in New South Wales, it has been estimated that one-fifth of the time of the force was taken up in extraneous duties not connected with the protection of life and property, while the cash value of the services rendered to other Government departments was stated as over £200,000 per annum. The Queensland Commissioner refers to the circumstance that in 1941-42 no less than 54 important subsidiary offices were held by the police. In South Australia, the Commissioner alludes to the large number of subsidiary duties performed by police officers, and mentions that for the year ended June, 1944, over 243,800 inquiries were made on behalf of other State and Commonwealth departments. As a result of the war extra duties have been added to those normally performed by the police. These relate chiefly to war emergency legislation and include, amongst others, the registration and control of movements of aliens throughout each State.

4. **Prison Accommodation and Prisoners, 1942 and 1943.**—The table below shows the number of prisons in each State, the accommodation therein, and the number of prisoners in confinement at the end of 1942 and 1943 :—

PRISON ACCOMMODATION AND PRISONERS.

State or Territory.	Number of Prisons.		Accommodation in—				Prisoners at End of Year.	
			Separate Cells.		Wards.			
	1942.	1943.	1942.	1943.	1942.	1943.	1942.	1943.
New South Wales(a) ..	13	13	1,947	1,941	45	44	1,558	1,739
Victoria ..	10	8	1,292	1,202	338	226	1,109	1,089
Queensland ..	7	8	558	564	106	118	298	318
South Australia ..	15	15	673	673	171	171	262	232
Western Australia(b) ..	20	21	257	444	94	92	260	240
Tasmania(a) ..	1	1	142	142	4	4	43	80
Northern Territory(a) ..	3	3	13	13	19	19	37	45
Total ..	69	69	4,882	4,979	777	674	3,567	3,743

(a) Year ended 30th June following.

(b) 30th June.

The figures refer to prisoners under sentence and exclude aborigines. There are no gaols in the Australian Capital Territory, but there are lock-ups attached to the police stations at Canberra and Jervis Bay, where offenders are held while awaiting trial or serving short sentences not exceeding one week imposed by the Magistrate's Court.

5. **Prisoners in Gaol, 1939 to 1943.**—The number of prisoners in gaol at 31st December in each of the years 1939 to 1943 and the proportion per 10,000 of the population are given in the following table. The figures refer to prisoners under sentence and exclude aborigines.

PRISONERS IN GAOL.

State or Territory.	1939.	1940.	1941.	1942.	1943.
NUMBER.					
New South Wales(a) ..	1,357	1,236	1,497	1,558	1,739
Victoria ..	1,144	1,046	939	1,109	1,089
Queensland ..	261	271	277	298	318
South Australia ..	199	197	208	262	232
Western Australia ..	234	246	211	(b) 260	(b) 240
Tasmania(a) ..	108	91	62	43	80
Northern Territory ..	23	39	32	(a) 37	(a) 45
Total ..	3,326	3,126	3,226	3,567	3,743

PER 10,000 OF THE POPULATION.

New South Wales(a) ..	4.9	4.4	5.3	5.5	6.1
Victoria ..	6.1	5.5	4.8	5.6	5.5
Queensland ..	2.6	2.6	2.7	2.9	3.0
South Australia ..	3.3	3.3	3.4	4.3	3.8
Western Australia ..	5.0	5.2	4.4	(b) 5.4	(b) 5.0
Tasmania(a) ..	4.5	3.8	2.6	1.8	3.3
Total ..	4.7	4.4	4.5	5.0	5.1

(a) 30th June of year following.

(b) 30th June.

After remaining stationary at 6.5 per 10,000 for the four years ended 1932 the proportion of prisoners in gaol to the total population declined to 4.5 in 1941 and rose to 5.1 in 1943. This figure compares most favourably with that obtaining in 1891, when the proportion was as high as 16 per 10,000. Rates for the Northern Territory have not been included on account of the prevailing abnormal conditions.

6. Improvement in Prison Methods.—In previous issues of the Official Year Book a fairly detailed account is given of the improvements effected in each State during recent years in regard to methods of prison management (see Official Year Book No. 22, pp. 471-4), but this information is not repeated in the present volume.

§ 5. Cost of Administration of Justice.

1. Expenditure by the States.—The table below shows the expenditure from Consolidated Revenue during 1942-43 and 1943-44 in connexion with the administration of justice in each of the States.

It is difficult to obtain comparable figures of the total costs of the various services under this heading, and net costs have been substituted for gross expenditure. It will be noted that in South Australia (both years) and Western Australia (1942-43) the receipts for legal fees and registrations exceed the actual expenditure under "Justice".

NET EXPENDITURE ON JUSTICE.

State.	Net Expenditure.			Per Head of Population		
	Justice.	Police.	Prisons.	Justice.	Police.	Prisons.
	£	£	£	s. d.	s. d.	s. d.
1942-43.						
New South Wales ..	217,887	1,492,869	224,146	1 6	10 7	1 7
Victoria ..	125,272	948,169	112,296	1 3	9 7	1 2
Queensland ..	98,000	752,815	46,230	1 11	14 5	0 11
South Australia ..	-19,551	325,380	37,387	-0 8	10 7	1 3
Western Australia ..	-3,894	261,247	33,590	-0 2	10 11	1 5
Tasmania ..	25,897	124,273	16,354	2 2	10 4	1 4
Total ..	443,611	3,904,753	470,003	1 3	10 11	1 4
1943-44.						
New South Wales ..	232,151	1,532,705	247,119	1 8	10 9	1 9
Victoria ..	131,777	989,794	133,042	1 4	9 11	1 4
Queensland ..	66,237	815,015	46,419	1 3	15 5	0 11
South Australia ..	-14,447	338,911	37,788	-0 6	10 11	1 3
Western Australia ..	12,762	263,860	41,232	0 6	10 11	1 9
Tasmania ..	25,674	130,252	18,887	2 1	10 8	1 7
Total ..	454,154	4,070,537	524,487	1 3	11 3	1 5

2. **Commonwealth Expenditure.**—The expenditure shown in the foregoing table is that incurred by the State Governments only, and does not include expenditure of the Commonwealth Attorney-General's Department, which is given hereunder for the years 1939-40 to 1943-44 :—

EXPENDITURE OF THE COMMONWEALTH ATTORNEY-GENERAL'S DEPARTMENT.

Year.					Gross Expenditure.	Receipts.	Net Expenditure
					£	£	£
1939-40	..	..	..	..	276,557	107,680	168,877
1940-41	..	..	..	..	297,400	99,898	197,502
1941-42	..	..	..	..	319,171	90,820	228,351
1942-43	..	..	..	..	351,452	103,919	247,533
1943-44	..	..	..	..	386,749	117,128	269,621

The totals for each year include expenditure in connexion with patents and copyright which amounted in 1943-44 to £48,171. The Commonwealth took over jurisdiction in bankruptcy in August, 1928, and the expenditure thereon in 1943-44 amounted to £41,937, including the salary of the Commonwealth Judges, £3,333. Expenditure in connexion with the Australian Capital Territory police amounted in 1943-44 to £11,218, and £4,196 was expended on miscellaneous items including the Law Court, Titles Office and Industrial Arbitration Board. Revenue of the Attorney-General's Department amounted for the year to £117,128, comprising £66,660 for patents, copyright, trademarks and designs, £16,795 for bankruptcy and £33,673 miscellaneous, including fees and fines.

In addition to the foregoing a sum of approximately £26,898 was expended in the Northern Territory during 1943-44 by the Department of the Interior on the administration of justice, including the costs of the police force and prisons.

CHAPTER VIII.

PUBLIC BENEVOLENCE, ETC.

A. INTRODUCTION.

Charity and charitable effort in Australia may be classified under three headings: (a) State; (b) public; and (c) private. To the first belong all institutions wholly provided for by the State, such as the principal hospitals for the insane in the various States, the Government and leased hospitals in Western Australia, and the Government homes for the infirm in New South Wales. The other classes comprise public institutions of two kinds, namely:—(i) those partially subsidized by the State or by State endowments for maintenance, but receiving also private aid, and (ii) those wholly dependent upon private aid. To the former division belong such institutions as the principal metropolitan hospitals. In the latter are included institutions established and endowed by individuals for the benefit of the needy generally. All charitable movements of a private character are included in the third group. A more or less accurate statistical account is possible in classes (a) and (b), but in regard to (c) complete tabulation is, for obvious reasons, impossible. Owing to differences in the dates of collection and tabulation it is impossible to bring statistics of charitable institutions to a common year.

No poor-rate is levied in Australia. Reference to invalid and old-age pensions, maternity allowances, child endowment, widows' pensions, and unemployed and sickness benefits, which are provided by the Commonwealth Government, will be found at the end of this Chapter.

From time to time relief funds have been organized for famine-stricken countries in various parts of the world, or for places where plagues, flood, fire, or earthquake have shown the need of urgent relief. Special funds were also raised for persons disabled or bereaved through war. Complete statistical information in regard to these forms of charity is not, however, available. It may be mentioned that the daily Press frequently accepts the duty of collectorship in charity appeals. In regard to subscriptions to the various patriotic funds which were instituted in consequence of the 1914-19 War, the total for Australia was estimated to exceed £12,500,000.

B. THE LARGER CHARITIES OF AUSTRALIA.

§ 1. Public Hospitals (other than Hospitals for the Insane).

1. *General.*—All the State capitals have several large and well-equipped hospitals, and there is at least one in every important town. In large centres there are hospitals for infectious diseases, tubercular patients, women, children, incurables, etc.

The particulars given herein refer to public hospitals at the latest available date and include all institutions affording hospital relief, whether general or special, with the exception of the hospitals for the insane and private hospitals conducted commercially. The particulars for New South Wales in the following tables relate to hospitals operating under the control of the Hospitals Commission.

2. *Principal Hospitals in each State.*—In earlier issues of the Official Year Book (see No. 22, pp. 481-2) particulars respecting staff, accommodation, etc., of each of the principal hospitals were given.

3. **Number, Staff and Accommodation, 1943-44.**—Details regarding the number of hospitals, staffs and accommodation for the year 1943-44 are given in the following table:—

PUBLIC HOSPITALS : NUMBER, STAFF AND ACCOMMODATION, 1943-44.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust. (a)	W. Aust.	Tas.	Total.
Number of Hospitals ..	214	73	115	57	84	23	566
Medical Staff—							
Honorary	1,639	803	165	253	72	96	3,028
Salaried	336	268	172	117	35	50	978
Total	1,975	1,071	337	370	107	146	4,006
Nursing Staff	6,310	4,004	3,190	1,281	1,096	541	16,422
Accommodation—							
Number of beds and cots	16,820	7,468	6,965	2,956	3,417	1,895	39,551

(a) Year ended 31st December, 1943.

The figures for accommodation shown in the table above include particulars, where available, of a considerable number of beds and cots for certain classes of cases in out-door or verandah sleeping places.

4. **Patients Treated.**—The following table furnishes particulars of patients treated.

PUBLIC HOSPITALS : INDOOR RELIEF, PATIENTS TREATED, 1943-44.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust. (a)	W. Aust.	Tas.	Total
Inmates at beginning of year—							
Males	5,254	2,539	2,384	884	997	513	12,571
Females	6,279	2,985	2,458	860	973	598	14,153
Total	11,533	5,524	4,842	1,744	1,970	1,111	26,724
Admissions and Re-admissions during year—							
Males	115,922	39,817	62,804	18,036	23,904	11,019	271,502
Females	152,917	53,620	66,999	21,840	24,271	14,575	331,222
Total	268,839	93,437	129,803	39,876	48,175	25,594	605,724
Discharges—							
Males	109,820	36,700	59,999	16,680	22,802	10,489	256,490
Females	147,750	51,354	64,807	20,747	23,634	14,098	322,390
Total	257,570	88,054	124,806	37,427	46,436	24,587	578,880
Deaths—							
Males	5,906	3,150	2,880	1,369	1,160	556	15,021
Females	4,624	2,337	2,004	948	660	446	11,019
Total	10,530	5,487	4,884	2,317	1,820	1,002	26,040
Inmates at end of year—							
Males	5,450	2,506	2,309	871	939	487	12,562
Females	6,822	2,914	2,646	1,005	950	629	14,966
Total	12,272	5,420	4,955	1,876	1,889	1,116	27,528
Average Daily Number Resident	12,218	5,512	4,814	2,018	1,909	1,102	27,573

(a) Year ended 31st December, 1943.

5. Revenue and Expenditure.—The revenue and expenditure for the year 1943-44 were as follows:—

PUBLIC HOSPITALS : REVENUE AND EXPENDITURE, 1943-44.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust. (a)	W. Aust.	Tas.	Total.
Revenue—							
Government Aid ..	£ 61,550,016	£ 1,353,132	£ 713,385	£ 321,120	£ 324,517	£ 120,773	£ 4,382,943
Municipal Aid ..	(c)	105,269	199,109	51,005	2,897	..	358,280
Public Subscrip- tions, Legacies, etc. ..	(d) 887,944	479,251	27,524	44,445	19,070	20,651	1,478,894
Fees ..	1,106,779	441,804	644,518	222,863	232,219	119,177	2,797,360
Other ..	(e) 210,209	109,187	112,058	11,068	23,231	9,682	475,435
Total ..	3,754,948	2,488,643	1,696,594	650,501	631,943	270,283	9,492,912
Expenditure—							
Salaries and Wages	1,977,347	972,342	794,694	315,206	287,529	139,180	4,486,298
Upkeep and Repair of Buildings and Grounds ..	171,147	125,032	38,054	24,797	12,355	7,474	378,859
All Other Ordinary Capital (f) ..	1,122,125	669,172	787,948	252,085	237,896	122,473	3,491,699
	(g)	133,625	63,468	43,371	73,116	..	(h) 313,580
Total ..	3,570,619	1,900,171	1,684,164	635,459	610,896	269,127	8,670,436

(a) Year ended 31st December, 1943. (b) Includes State aid for buildings, £96,899.
(c) Included in "Other." (d) Includes legacies and bequests for capital purposes, £62,843.
(e) Includes loans raised under Section 37 of the Public Hospitals Act, £89,822. (f) Includes such
items as Purchases of Land, Cost of New Buildings and Additions to Buildings. (g) Not available.
(h) Incomplete.

6. Summary for Five Years, 1939-40 to 1943-44.—A summary for the last five years of the number of hospitals in Australia, medical and nursing staffs, beds, admissions, indoor patients treated, deaths, average daily number resident, revenue, and expenditure is given in the following table. The figures relate to both general and special hospitals. It should be noted that the statistics for the States cannot be brought to a common year, and consequently the following particulars relate to a combination of calendar and financial years.

PUBLIC HOSPITALS : AUSTRALIA.

Particulars.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.
Institutions .. No.	566	564	566	562	566
Medical Staff .. "	3,951	4,173	3,909	3,787	4,006
Nursing Staff .. "	14,640	15,160	15,362	15,925	16,422
Beds and Cots .. "	36,911	38,257	38,094	38,576	39,551
Admissions during year	555,968	591,107	568,401	585,037	605,724
Total indoor cases treated	No.				
	582,159	617,314	595,353	610,434	632,448
Deaths .. "	23,158	23,423	24,787	25,894	26,040
Average daily resident	"	26,252	27,386	25,854	26,059
	£				
Revenue ..	7,882,226	8,205,444	8,657,310	8,757,344	9,492,912
Expenditure ..	£ 7,060,007	7,376,074	7,514,757	8,007,540	8,670,436

In addition to those admitted to the institutions, there are large numbers of out-patients. During 1943-44 there were 598,489 out-patients treated in New South Wales, 260,063 in Victoria, 279,030 in Queensland, 52,898 in South Australia, 55,292 (estimated) in Western Australia and 20,082 (estimated) in Tasmania.

§. 2. Benevolent and Destitute Asylums.

1. General.—The public provisions for the care of indigent old people has been a feature of the social development of recent years in most countries. Numerous establishments exist in Australia for the housing and protection of persons no longer able

to provide for themselves. These institutions are supported by Government and municipal aid, public subscriptions, bequests, etc.; while in many cases relatives of poor and afflicted persons contribute to their maintenance.

An entirely satisfactory statistical tabulation in regard to all forms of charitable aid is especially difficult in the case of benevolent institutions, because the services provided by these institutions are not always identical. For example, in Western Australia, the Home for Destitute Women includes a maternity ward, for which statistics are not kept separately. Since the chief function of the institution is to help the destitute, it has been included amongst benevolent asylums.

2. **Principal Institutions.**—Particulars respecting the accommodation and the number of inmates of the principal institutions were published in earlier issues of the Official Year Book (see No. 22, p. 485).

3. **Revenue and Expenditure.**—Details regarding revenue and expenditure for the year 1943-44 are given in the following table:—

BENEVOLENT ASYLUMS : REVENUE AND EXPENDITURE, 1943-44.

Particulars.	N.S.W. (a)	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
	£	£	£	£	£	£	£
Revenue—							
Government Aid	139,014	71,080	52,385	11,682	9,312	21,097	304,570
Municipal Aid ..	..	1,034	..	..	..	..	1,034
Public Subscriptions, Legacies	..	24,702	3,267	..	..	399	} 314,603
Fees ..	69,698	82,292	57,724	8,722	22,953	15,039	
Other ..	..	10,759	11,324	5,536	527	1,661	
Total ..	208,712	189,867	124,700	25,940	32,792	38,196	620,207
Expenditure—							
Salaries and Wages ..	103,743	88,790	38,360	11,808	17,628	19,224	279,553
Upkeep and Repair of Buildings ..	8,620	11,549	5,830	1,220	1,647	1,420	30,286
All Other(b) ..	96,349	84,535	79,950	12,912	13,517	16,908	304,171
Total ..	208,712	184,874	124,140	25,940	32,792	37,552	614,010

(a) These figures relate to the three State Hospitals and Homes only, at 31st December, 1943.

(b) Includes £7,244 in Victoria and £954 in Western Australia, covering such items as Purchases of Land, Cost of New Buildings and Additions to Buildings.

§ 3. Orphanages, Industrial Schools, etc.

1. **General.**—The methods of caring for orphans and neglected children differ extensively, inasmuch as some of the children are more or less segregated in orphanages and industrial schools, while others are boarded-out with their mothers or female relatives or with approved foster-mothers. The children in orphanages and similar institutions may receive, in addition to primary education, some craft training. In all cases employment is found for the children on their discharge from the institution, and they remain for some time under the supervision of the proper authorities. The conditions under which orphans, neglected children and children boarded-out live are subject to frequent departmental inspections.

2. **Principal Institutions.**—Particulars concerning the principal institutions in each State were published in earlier issues of the Official Year Book (see No. 22, p. 486).

3. **Transactions of State Departments.**—The following table summarizes the transactions during 1943-44 of State Departments in connexion with children under their control or supervision. In addition to neglected children, the figures include uncontrollable and convicted children who are wards of a Government authority, as well as poor children whose parents obtain assistance from the Government without giving up the legal right of custody:—

CHILDREN UNDER GOVERNMENT AUTHORITY : SUMMARY, 1943-44.

Particulars.	N.S.W.	Vic. (a)	Q'land. (a)	S. Aust.	W. Aust.	Tas.	Total.
<i>A. Children maintained or subsidized by the State.</i>	No.	No.	No.	No.	No.	No.	No.
In State shelters, industrial schools, reformatories, etc.(b)	1,058	369	1,037	201	98	68	2,831
In licensed or approved institutions .. ..	..	1,665	..	76	450	142	2,333
Boarded-out—							
With own mothers ..	6,143	3,641	3,353	192	58	1,052	14,439
With licensed foster-mothers, guardians, relatives and friends	2,125	971	426	3,012	231	281	7,046
Total children maintained or subsidized by the State	9,326	6,646	4,816	3,481	837	1,543	26,649
<i>B. Children not maintained or subsidized by the State.</i>							
In licensed or approved institutions	1,188	..	..	..	671	..	1,859
Boarded-out	96	..	..	1,141	506	..	1,743
On probation (from Institutions or Children's Courts)	2,222	1,204	173	493	291	..	4,383
In service or apprenticed	135	285	315	176	83	..	994
Adopted or otherwise placed	251	..	18	..	137	..	406
Total children not maintained or subsidized by the State	3,892	1,489	506	1,810	1,688	..	9,385
Total children under State control or supervision ..	13,218	8,135	5,322	5,291	2,525	1,543	36,034
Gross cost of children's relief	£ 393,871	£ 223,232	£ 173,061	£ 69,530	£ 20,801	£ 13,020	£ 893,515
Receipts from parents' contributions, etc. ..	44,760	22,322	15,344	10,523	9,494	2,161	104,604
Net cost to State ..	349,111	200,910	157,717	59,007	11,307	10,859	788,911

(a) Year ended 31st December, 1943.
2,692 children in receipt of Ration Relief.

(b) Includes inmates of hospitals.

(c) Includes

The total expenditure on children's relief in the previous table shows considerable variation amongst the States owing to the different methods of treating assistance to mothers with dependent children. In South Australia, Western Australia and Tasmania large amounts have been excluded from the total expenditure on this account owing to the difficulty of obtaining separate amounts for allowances made in respect of the dependent children only.

§ 4. Leper Hospitals.

Isolation hospitals for the care and treatment of lepers have been established in New South Wales (Little Bay); Queensland (Peel Island, near Brisbane, and Fantome Island, North Queensland); Western Australia (Derby); and the Northern Territory (Channel Island, near Darwin). At the end of 1944 there were 24 cases in residence at Little Bay, 46 at Peel Island, 75 at Fantome Island, 256 at Derby, 47 at Channel Island, 1 at Coode Island Hospital, Melbourne, Victoria, and 4 isolated cases in the south of Western Australia. Of the 453 cases, 381 were aboriginals, 6 Asiatics and 66 Europeans.

§ 5. Hospitals for the Insane.

1. **General.**—The methods of compiling statistics of insanity are fairly uniform throughout the States, but there is an element of uncertainty as to possible differences in diagnosis in the early stages of the disease.

2. **Hospitals, Staff, etc., 1943-44.**—Particulars regarding the number of institutions, the medical and nursing staffs, and accommodation are given in the following table for the year 1943-44 :—

HOSPITALS FOR THE INSANE : NUMBER, STAFFS, ACCOMMODATION, 1943-44.(a)

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Number of Institutions ..	11	9	5	3	4	1	33
Medical Staff—							
Males	33	32	8	8	5	2	88
Females	6	..	2	..	..	1	9
Total	39	32	10	8	5	3	97
Nursing Staff and Attendants—							
Males	766	508	282	175	149	79	1,959
Females	888	483	289	165	94	80	1,999
Total	1,654	991	571	340	243	159	3,958
Accommodation—							
Number of beds and cots	11,411	6,671	3,876	2,092	1,446	750	26,246

(a) The figures relate to years ended as follows :—New South Wales, Queensland and Tasmania—30th June, 1944; Victoria, South Australia and Western Australia—31st December, 1943.

3. **Patients, 1943-44.**—Information regarding patients treated, deaths, etc., for 1943-44 is given in the following table :—

HOSPITALS FOR THE INSANE : PATIENTS, DEATHS, ETC. 1943-44.(a)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Number of distinct persons treated during year (b)—							
Males	6,817	3,841	2,674	1,085	1,006	393	15,816
Females	6,675	4,289	2,041	1,004	605	405	15,019
Total	13,492	8,130	4,715	2,089	1,611	798	30,835

(a) See footnote (a) to previous table.

(b) Excludes transfers to other institutions.

HOSPITALS FOR THE INSANE: PATIENTS, DEATHS, ETC.,

1943-44 (a)—continued.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Number of patients on books at beginning of year—							
Males	6,104	3,438	2,060	986	925	315	13,828
Females	5,850	3,818	1,689	906	549	337	13,149
Total	11,954	7,256	3,749	1,892	1,474	652	26,977
Admissions and re-admissions excluding absconders retaken and transfers from other institutions—							
Males	713	403	614	99	81	78	1,988
Females	825	471	352	98	56	68	1,870
Total	1,538	874	966	197	137	146	3,858
Discharges (including absconders not retaken)—							
Males	414	163	480	40	41	50	1,188
Females	418	161	146	34	20	50	829
Total	832	324	626	74	61	100	2,017
Deaths—							
Males	462	266	159	66	75	30	1,058
Females	409	288	111	60	23	28	919
Total	871	554	270	126	98	58	1,977
Number of patients on books at end of year—							
Males	5,941	3,412	2,035	979	890	313	13,570
Females	5,848	3,840	1,784	910	562	327	13,271
Total	11,789	7,252	3,819	1,889	1,452	640	26,841
Average daily number resident—							
Males	5,495	2,965	1,996	984	895	314	12,649
Females	5,240	3,354	1,670	899	531	332	12,026
Total	10,735	6,319	3,666	1,883	1,426	646	24,675
Number of patients on books at end of year per 1,000 of population—							
Males	4.13	3.47	3.70	3.19	3.54	2.53	3.72
Females	4.08	3.82	3.46	2.92	2.43	2.69	3.67
Total	4.11	3.65	3.58	3.05	3.01	2.61	3.69
Average number of patients resident in hospitals for insane per 1,000 of mean population—							
Males	3.84	3.03	3.65	3.22	3.58	2.55	3.48
Females	3.68	3.35	3.26	2.90	2.31	2.75	3.34
Total	3.76	3.19	3.46	3.06	2.97	2.88	3.41

(a) See footnote (a) to previous table.

In some States persons well advanced towards recovery are allowed to leave the institutions and reside with their relatives or friends, but they are under supervision and their names are kept in the records.

4. Revenue and Expenditure 1943-44.—The revenue of Government hospitals for the insane is small in comparison with their cost, and consists chiefly of patients' fees. The proportion of expenditure borne by the State amounts to about 83 per cent.

HOSPITALS FOR THE INSANE : FINANCES, 1943-44.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust. (a)	W. Aust.	Tas.	Total.
	£	£ \	£	£	£	£	£
Revenue (excluding Government Grants)—							
Fees of Patients ..	155,455	81,854	42,819	43,546	24,949	10,217	358,840
Other ..	13,988	11,293	1,945	3	3,462	168	30,859
Total	169,443	93,147	44,764	43,549	28,411	10,385	389,699
Expenditure—							
Salaries and Wages ..	533,831	331,647	186,332	110,477	94,399	50,076	1,306,762
Upkeep and Repair of Buildings, &c. ..	4,992	35,520	1,921	7,279	6,153	..	55,865
All Other(b) ..	375,606	266,462	147,378	73,454	55,108	28,360	946,368
Total	914,429	633,629	335,631	191,210	155,660	78,436	2,308,995
Expenditure per Average Daily Resident ..	£85/3/8	£95/7/4	£91/11/1	£101/10/11	£109/3/2	£121/8/4	£92/7/2

(a) Year ended 31st December, 1943.

(b) Includes the following amounts for capital expenditure on Purchases of Land, Cost of New Buildings, and Additions to Buildings: New South Wales, £35,267; Victoria, £4,200; Queensland, £8,326; South Australia, £487; and Western Australia, £711.

5. Summary for Australia, 1939-40 to 1943-44.—The following table gives a summary of hospitals for the insane in Australia during each of the five years 1939-40 to 1943-44. The figures for the States cannot be brought to a common year; consequently the following particulars relate to a combination of calendar and financial years. Licensed houses are included in all particulars excepting revenue and expenditure for New South Wales. The figures exclude those of reception houses and observation wards in gaols. In New South Wales the expenditure includes cost of Broken Hill patients treated in South Australian hospitals:—

HOSPITALS FOR THE INSANE : SUMMARY, AUSTRALIA.

Particulars.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.
Institutions No.	35	34	32	32	33
Medical Staff "	92	89	91	92	97
Nursing Staff "	5,023	4,270	3,948	3,714	3,958
Beds "	26,097	25,771	25,835	25,977	26,246
Admissions "	3,842	3,667	3,712	3,869	3,858
Discharged as recovered, relieved, etc. "	1,819	1,771	1,806	2,052	2,017
Deaths "	1,798	1,490	1,794	1,992	1,977
Revenue (excluding Government Grants) £	294,446	311,089	308,907	388,213	389,699
Expenditure—Total £	2,066,440	2,090,120	2,092,499	2,138,957	2,308,995
—Per Average Daily Resident ..	£83/15/2	£83/2/7	£81/8/9	£84/16/9	£92/7/2

6. **Number of Insane, 1939-40 to 1943-44.**—The total number returned as under treatment shows slight fluctuations during the period but the proportion shows a slight decline in 1943-44. A more rational attitude towards the treatment of mental cases has resulted in a greater willingness in recent years to submit afflicted persons to treatment at an earlier stage, and an increase in the number of recorded cases, therefore, does not necessarily imply an actual increase in insanity.

INSANE PERSONS IN INSTITUTIONS.

State.	1939-40	1940-41.	1941-42.	1942-43.	1943-44.
NUMBER.					
New South Wales	11,837	12,050	12,047	11,954	11,789
Victoria	7,226	7,285	7,340	7,256	7,252
Queensland	3,707	3,772	3,735	3,749	3,819
South Australia	1,800	1,847	1,905	1,892	1,889
Western Australia	1,482	1,473	1,486	1,474	1,452
Tasmania	640	641	639	652	640
Australia	26,692	27,068	27,152	26,977	26,841
PER 1,000 OF POPULATION.					
New South Wales	4.26	4.32	4.29	4.21	4.11
Victoria	3.87	3.83	3.79	3.69	3.65
Queensland	3.60	3.60	3.60	3.56	3.58
South Australia	3.01	3.09	3.16	3.09	3.05
Western Australia	3.16	3.15	3.14	3.07	3.01
Tasmania	2.67	2.67	2.66	2.69	2.61
Australia	3.80	3.85	3.83	3.75	3.69

The difference between States in the number of insane persons in institutions per 1,000 of population may be due to some extent to differences in classification.

7. **Causes of Insanity.**—The general information available respecting the causes of the insanity of persons admitted to institutions is too unsatisfactory to be given in detail.

8. **Length of Residence in Hospital, 1943-44.**—(i) *New South Wales and Victoria.* Particulars are not available regarding the average length of residence in hospitals of persons who died or were discharged during the year.

(ii) *Queensland.* The average residence of those who died during 1943-44 was 8 years 202 days for males, and 7 years 352 days for females; of those discharged, 174 days for males, and 1 year 128 days for females.

(iii) *South Australia.* The average residence of those who died during 1943 was 11 years 11 months 24 days for males, and 12 years 2 months 29 days for females; of those discharged, 2 years 26 days for males, and 3 years 3 months 20 days for females.

(iv) *Western Australia.* The average residence of those who died in 1943 was 12 years 7 months 10 days for males, and 11 years 11 months 1 day for females; of those discharged, 2 years 3 months 19 days for males, and 3 years 1 month 7 days for females.

(v) *Tasmania.* The average residence of those who died during 1943-44 was 9 years 157 days for males, and 9 years 174 days for females; of those discharged, 1 year 170 days for males, and 1 year 297 days for females.

§ 6. Protection of Aborigines.

For the protection of the aboriginal Australian race there are institutions, under the supervision of Aborigines Boards, where these people are housed and encouraged to work, the children receiving elementary education. The work is usually carried on at mission stations, but many of the natives are nomadic, and receive food and clothing when they call, whilst others but rarely come near the stations. The native race is extinct in Tasmania. The expenditure from Consolidated Revenue in 1943-44 was: New South Wales, £49,776; Victoria, £4,470; Queensland, £87,560; South Australia, £35,977; Western Australia, £38,260; Northern Territory, £23,333; Australian Capital Territory, £736; total for Australia, £240,112. At a census of aborigines taken at 30th June, 1944, in all States except New South Wales the number of full-blood and half-caste aborigines living in supervised camps was as follows:—

ABORIGINES IN SUPERVISED CAMPS, 30th JUNE, 1944.

Particulars.	New South Wales. (a)	Victoria	Queens- land.	South Australia.	Western Australia.	Northern Territory.	Total. (b)
	No.	No.	No.	No.	No.	No.	No.
Full-bloods ..	373	18	4,298	726	4,450	8,361	18,227
Half-castes ..	4,114	229	2,271	1,118	1,698	449	9,980

(a) At 30th June, 1941.
Territory.

(b) Includes one full-blood and 101 half-castes in the Australian Capital

Particulars regarding total number of aborigines in each State will be found in the Chapter XIV. "Population".

§ 7. Royal Life Saving Society.

In each of the State capitals, "centres" of the Royal Life Saving Society have been established, and in some States sub-centres have also been established in the larger provincial districts. In 1934 an Australian Federal Council of this Society was formed with head-quarters at Melbourne, and each State centre, or branch, as it is now called, is controlled by the new organization. Saving of life from drowning and other forms of asphyxiation is the object of the Society, and its immediate aims are (a) educative and (b) remedial. The encouragement of swimming and life-saving in schools, colleges, clubs, etc., will bring about a more widespread knowledge of these necessary matters, and there is increasing provision of life-belts, reels, lines, warning provisions, and other first-aid appliances on ocean beaches, wharves and other suitable places. Numerous certificates of proficiency in various grades are issued annually after examination throughout Australia, the number for the individual States for 1943-44 being:—New South Wales, 9,881; Victoria, 7,816; Queensland, 1,319; South Australia, 957; Western Australia, 2,304; Tasmania, 242; and Fiji, which comes under the control of the Australian Federal Council, 456.

§ 8. Royal Humane Society.

The Royal Humane Society of Australasia has for its objects (a) to grant awards for skill, promptness and perseverance in life-saving, where the rescuer has risked his or her life; (b) to provide assistance in cases of danger and apparent death; (c) to restore the apparently drowned; (d) to collect and circulate the latest information regarding approved methods and apparatus for life-saving. Awards of medals and certificates are made numbering about 100 annually.

§ 9. Other Charitable Institutions.

Owing to variety of name and function of other charitable institutions it has been found impracticable to give detailed results. The aid given in kind—food, clothing, tools of trade, etc.—is considerable, whilst the shelter and treatment afforded range from a bed for a night for casual callers in establishments ministering minor charity to

indoor treatment over long periods in those that exist for the relief of the aged and the infirm. The institutions not so particularized include asylums for the deaf, dumb and blind, infant homes, homes for the destitute and aged poor, industrial colonies, night shelters, crèches, homes of hope, rescue homes, free kindergarten and ragged schools, auxiliary medical charities, free dispensaries, benevolent societies and nursing systems, ambulance and health societies, boys' brigades, humane and animals' protection societies, prisoners' aid associations, shipwreck relief societies, bush fire and mining accident relief funds, etc.

§ 10. Total Expenditure on Charities.

Issues of the Official Year Book prior to No. 24 embodied statistics of expenditure on charities. The returns available, however, included a portion only of direct expenditure by Governments, and, in general, there is lack of harmony in the information available for the different States. Pending the result of further inquiry it has been decided to omit this table from the present chapter.

C. SOCIAL SERVICES BENEFITS.

§ 1. Commonwealth Invalid and Old-age Pensions.

1. **General.**—In previous issues of the Official Year Book an account is given of the introduction of the old-age pension system in Australia, together with a detailed description of the Commonwealth Invalid and Old-age Pensions Act 1908, which became operative on 1st July, 1909. Invalid pensions were first paid from 15th December, 1910. The following statement shows the rates of pension at July, 1909 and the rates as they have been varied since that date :—

RATES OF PENSION PAYABLE.

Date from which Operative.	Pension Payable—		Pensioner's Maximum Income including pension.	
	Annual Rate.	Weekly Equivalent.	Annual Rate.	Weekly Equivalent.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1st July, 1909	26 0 0	0 10 0	52 0 0	1 0 0
12th October, 1916	32 10 0	0 12 6	58 10 0	1 2 6
1st January, 1920	39 0 0	0 15 0	65 0 0	1 5 0
13th September, 1923	45 10 0	0 17 6	78 0 0	1 10 0
8th October, 1925	52 0 0	1 0 0	84 10 0	1 12 6
23rd July, 1931	45 10 0	0 17 6	78 0 0	1 10 0
13th October, 1932	45 10 0	0 17 6	71 10 0	1 7 6
26th October, 1933	45 10 0	0 17 6	78 0 0	1 10 0
4th July, 1935	46 16 0	0 18 0	79 6 0	1 10 6
24th September, 1936	49 8 0	0 19 0	81 18 0	1 11 6
9th September, 1937	52 0 0	1 0 0	84 10 0	1 12 6
26th December, 1940	54 12 0	1 1 0	87 2 0	1 13 6
3rd April, 1941	55 18 0	1 1 6	88 8 0	1 14 0
11th December, 1941	61 2 0	1 3 6	93 12 0	1 16 0
2nd April, 1942	65 0 0	1 5 0	97 10 0	1 17 6
1st October, 1942	66 6 0	1 5 6	98 16 0	1 18 0
7th January, 1943	67 12 0	1 6 0	100 2 0	1 18 6
1st April, 1943	68 18 0	1 6 6	101 8 0	1 19 0
19th August, 1943	70 4 0	1 7 0	102 14 0	1 19 6
25th November, 1943(a)	68 18 0	1 6 6	101 8 0	1 19 0
25th November, 1943	70 4 0	1 7 0	102 14 0	1 19 6
5th July, 1945	84 10 0	1 12 6	117 0 0	2 5 0

(a) Rate restored to £70 4s. per annum under National Security (Supplementary) Regulation 112A. Statutory Rule 315 of 1943.

Particulars relating to the provision of an adjustment of the pension rate in accordance with the variations of the Retail Price Index-number are given in the Official Year Book No. 35, p. 580. This provision was repealed by Act No. 16 of 1944 and the rate of pension reverted to £70 4s. per annum (£1 7s. per week).

Subject to the conditions of the Act, every person, who is not receiving an invalid pension, and who has attained the age of sixty-five years (in the case of females, sixty years), is, while in Australia, qualified to receive an old-age pension.

Asiatics and aboriginal natives of Australia, Africa, the Islands of the Pacific or New Zealand generally, are not eligible to receive an invalid or old-age pension, but the Act was amended in November, 1941 to include those Asiatics who are British subjects, and in May, 1942, to include, under certain conditions, aboriginal natives of Australia and of the Pacific Islands.

Invalid pensions were granted from 15th December, 1910. Subject to the conditions of the Act, every person above the age of sixteen years who is permanently incapacitated for work, and every permanently blind person above the age of sixteen years, provided that, in each case, an old-age pension is not being received, is, while in Australia, qualified to receive an invalid pension. A claimant for an invalid pension, or an invalid pensioner, may be required to undertake such training for a vocation or physical rehabilitation as is available. In 1920 special provision was made for a permanently blind person, by which the annual pension was at such a rate (not exceeding that shown in the table above), as would make his income plus that of his wife together with the pension equal to an amount not exceeding £221 per annum. This amount has since been varied from time to time. Under the amending Act of April, 1944, the amount of pension payable to a blind person is reducible by the amount (if any) by which the income of the pensioner and the pensioner's wife (or husband) exceeds £260 per annum (£5 per week). Where a husband and wife are both blind and qualified to receive a pension only half the combined income in excess of £260 per annum is deducted from each pension.

An amendment to the Act, assented to on 29th March, 1943, provided for the payment from 8th July, 1943 of an allowance not exceeding £39 per annum to wives of invalid pensioners, provided that they themselves are not invalid or old-age pensioners. This allowance is subject to the deduction of the amount by which the other income of the wife exceeds £32 10s. per annum (12s. 6d. per week) and of £1 for every complete £10 by which the net capital value of the accumulated property of the wife exceeds £50. Provision has also been made for the payment of an additional allowance of £13 per annum (5s. per week) where there are children under sixteen years of age. The same amendment provides for the payment from 1st July, 1943, of an amount not to exceed £10 towards the funeral costs of invalid and old-age pensioners.

During 1939-40 all invalid pensions in force were specially reviewed, and at 30th June, 1940 all those pensioners who had become qualified for old-age pensions by age and residence were transferred to the old-age pension list. This transference has been continued since that date, though the numbers involved are naturally much smaller. Reciprocity between Australia and New Zealand in respect of invalid and old-age pensions operated from 1st September, 1943.

2. *Old-age Pensions.*—(i) *Number in force.* At 30th June, 1944 there were 257,186 old-age pensions in force. During 1944-45, 17,619 pensions claims were granted, and 1,616 pensioners were transferred from the invalid pension list, while 23,787 pensions expired through cancellations and deaths. The net decrease for the year was 4,552 and the total in existence at 30th June, 1945, 252,634.

(ii) *Sexes of Pensioners—States.* Of the pensioners at 30th June, 1945, 92,565 (or 37 per cent.) were males, and 160,069 (or 63 per cent.) were females. Details for each State are as follows :—

OLD-AGE PENSIONS : SEXES OF PENSIONERS AT 30th JUNE, 1945.

State.	Males.	Females.	Total.	Masculinity.(a)
New South Wales (b)	37,748	65,681	103,429	57.47
Victoria	23,074	44,166	67,240	52.24
Queensland	13,366	19,344	32,710	69.10
South Australia (c)	7,597	14,523	22,030	51.69
Western Australia	7,148	10,565	17,713	67.66
Tasmania	3,722	5,790	9,512	64.28
Total—30th June, 1945	92,565	160,069	252,634	57.83
„ 1944	95,511	161,675	257,186	59.08
„ 1943	101,648	165,591	267,239	61.38

(a) Number of males to each 100 females.

(b) Includes Australian Capital Territory.

(c) Includes Northern Territory.

(iii) *Ages and Conjugal Conditions of Pensioners.* The recorded ages of the 17,619 persons (7,956 males and 9,663 females) to whom old-age pensions were granted during the year 1944-45 varied considerably, ranging from 2,238 at age 60 to 1 at age 98, but 13,203 were in the 60-70 group. The conjugal condition of these new pensioners was as follows :—Males—single, 1,344; married, 5,060; and widowed, 1,552: Females—single, 1,401; married, 5,680; and widowed, 2,582.

3. *Invalid Pensions.*—(i) *Number in force.* The number of invalid pensioners increased from 57,942 in 1943-44 to 58,281 in 1944-45, an increase of 339. Total pensions granted during the year were 8,186 while 6,231 pensions ceased through cancellations or deaths, and 1,616 were transferred to the old-age pension list.

(ii) *Sexes of Pensioners.* Of the 58,281 persons in receipt of invalid pensions on 30th June, 1945, 28,552, or 49 per cent. were males, and 29,729, or 51 per cent. were females. Details for the several States are as follows :—

INVALID PENSIONS : SEXES OF PENSIONERS AT 30th JUNE, 1945.

State.	Males.	Females.	Total.	Masculinity.(a)
New South Wales (b)	13,117	12,858	25,975	102.01
Victoria	5,957	6,641	12,598	89.70
Queensland	4,639	4,446	9,085	104.34
South Australia (c)	1,845	2,665	4,510	69.23
Western Australia	1,691	1,723	3,414	98.14
Tasmania	1,303	1,396	2,699	93.34
Total—30th June, 1945	28,552	29,729	58,281	96.04
„ 1944	26,473	31,469	57,942	84.12
„ 1943	25,496	32,585	58,081	78.24

(a) Number of males to each 100 females.

(b) Includes Australian Capital Territory.

(c) Includes Northern Territory.

(iii) *Ages and Conjugal Conditions of Pensioners.* The recorded ages of the 8,186 persons (£5,260 males and 2,926 females) to whom invalid pensions were granted during 1944-45 varied from 16 to 90, 3,236 or 40 per cent. being in the 45-59 years age-group.

The conjugal condition of persons to whom invalid pensions were granted during the year was as follows :—Males—single, 1,863; married, 3,092; and widowed, 305: Females—single, 1,740; married, 911; and widowed, 275.

4. *Cost of Administration.*—The total cost of administering invalid and old-age pensions, including wives' allowances, was in 1943-44 and 1944-45 about £201,000 or 0.92 per cent. of the amount paid to pensioners, Benevolent Asylums and Hospitals and for wives' allowances. The corresponding cost in 1942-43 was approximately £187,000 or 0.84 per cent. of the total payments.

The actual sum disbursed in invalid and old-age pensions in the financial year 1944-45, apart from the cost of administration but including the amount paid to asylums and hospitals for the maintenance of pensioners and allowances to wives of invalid pensioners, was £21,701,127 (59s. 1d. per head of mean population). In 1943-44 it was £21,699,100 (59s. 9d. per head).

5. *Summary.*—The following table gives details of invalid and old-age pensions and approximate cost of administration for the five years 1938-39 and 1941-42 to 1944-45 :—

INVALID AND OLD-AGE PENSIONS : SUMMARY, AUSTRALIA.

Year ended 30th June—	Number of Pensioners.				Amount Paid in Pensions.	Total Payment to Pensioners and Institutions. (b)	Cost of Administration (approximate).	Cost of Administration per £100 paid to Pensioners and Institutions (approximate).	Average Fortnightly Pension as at 30th June.
	Old-age.		Invalid.	Total.					
	No.	Est. No. per 1,000 of persons eligible on age qualification. (a)							
	No.		No.	No.	£	£	£	s. d.	s. d.
1939	232,836	376	88,812	321,648	15,798,038	15,991,782	128,000	16 0	38 5
1942	275,456	411	60,597	336,053	19,058,159	19,257,025	120,000	12 6	48 4
1943	267,239	390	58,081	325,320	22,047,786	22,292,835	187,000	16 9	51 1
1944	257,186	367	57,942	315,128	21,479,933	21,699,100	201,000	18 6	51 11
1945	252,634	326	58,281	310,915	21,475,570	21,701,127	201,000	18 6	51 5

(a) Based on an estimate of the aggregate of males aged 65 and over and females aged 60 and over at 30th June of each year. (b) Includes allowances to wives of invalid pensioners from 1943-44, but excludes £195,336 in 1943-44 and £163,993 in 1944-45 for funeral benefits in respect of deaths of pensioners. (c) Changes in rate—see part. I, page 244.

Separate particulars of the payments to invalid and to old-age pensioners are not available but the total payments in 1944-45 in each State together with the annual liability at 30th June, 1945 are given in the following table:—

INVALID AND OLD-AGE PENSIONS : PAYMENTS AND ANNUAL LIABILITY.

State.	Total Payments Invalid and Old-age Pensions, 1944-45. (a)	Annual Liability at 30th June, 1945.		
		Old-age Pensions.	Invalid Pensions.	Total.
	£	£	£	£
New South Wales (b)	8,993,577	6,795,048	1,784,796	8,579,844
Victoria	5,604,739	4,530,877	857,480	5,388,357
Queensland	2,943,029	2,214,160	622,544	2,836,704
South Australia (c)	1,811,704	1,451,658	304,200	1,755,858
Western Australia ..	1,473,298	1,177,384	231,920	1,409,304
Tasmania	874,780	635,284	184,184	819,468
Total—1944-45 ..	21,701,127	16,804,411	3,985,124	20,789,535
1943-44 ..	21,699,100	17,314,986	3,968,770	21,283,756
1942-43 ..	22,292,835	17,702,594	3,913,130	21,615,724

(a) Includes amounts paid to Benevolent Asylums and Hospitals for the maintenance of pensioners, and allowances to wives of invalid pensioners. (b) Includes Australian Capital Territory. (c) Includes Northern Territory.

§ 2. Commonwealth Child Endowment.

1. General.—The Commonwealth Child Endowment Act came into operation on 1st July, 1941, and provided for payment of 5s. per week (increased to 7s. 6d. per week from 26th June, 1945) for each child in excess of one under 16 years of age maintained in a family, and for children under 16 years of age in approved institutions. During the year 1944-45, 51,147 claims were granted. Cancellations amounted to 35,994 and the number of endowed family claims in force at 30th June, 1945 was 518,293, an increase of 15,153 during the year.

2. Summary.—The following table shows particulars of the operations under the Child Endowment Act during the year ended 30th June, 1945:—

CHILD ENDOWMENT : SUMMARY, 1944-45.

Family Groups.						
State.	Claims in force at end of year.	Endowed Children.		Annual Liability at 30th June, 1945.		Total Payments to Endowees and Institutions.
		Total.	Average per claim.	Total.	Average Liability per claim.	
	No.	No.	No.	£	£	£
New South Wales(a)	205,472	305,430	1.78	7,120,002	34.68	4,099,888
Victoria	131,526	224,146	1.70	4,370,847	33.23	2,984,646
Queensland	81,047	152,257	1.88	2,969,011	36.63	1,983,075
South Australia(h)..	42,381	71,918	1.70	1,402,401	33.09	934,578
Western Australia..	38,643	68,316	1.77	1,332,162	34.47	905,508
Tasmania	19,224	38,354	2.00	747,903	38.90	528,554
Total—1944-45 ..	518,293	920,427	1.78	17,948,326	34.63	12,036,240
1943-44 ..	503,140	903,577	1.80	11,746,501	23.35	12,256,976
1942-43 ..	491,121	891,221	1.82	11,585,873	23.59	11,659,626
1941-42 ..	487,674	895,558	1.84	11,642,254	23.87	11,302,863

(a) Includes Australian Capital Territory.

(b) Includes Northern Territory.

In addition to the children endowed in families, child endowment benefits were paid in respect of children in approved institutions during 1941-42 to 1944-45 as follows: 1941-42, 14,289; 1942-43, 16,938; 1943-44, 18,396; and in 1944-45, 18,116.

In 1944-45 the cost of administration was £145,734 or 1.21 per cent. of the total payments made.

3. **Number of Children.**—The following table shows the number of claims in force, the number of endowed children and the number of unendowed children in endowed families, classified according to the number of children in the family:—

CHILD ENDOWMENT : NUMBER OF CHILDREN(a) AT 30th JUNE, 1945.

Size of Family.	Claims of Endowed Families in force at 30th June, 1945.	Children.		
		Endowed.	Unendowed in Endowed Families.	Total in Endowed Families.
Two children ..	287,945	287,945	287,945	575,890
Three " ..	131,924	263,848	131,924	395,772
Four " ..	55,761	167,283	55,761	223,044
Five " ..	24,218	96,872	24,218	121,090
Six " ..	10,666	53,330	10,666	63,996
Seven " ..	4,734	28,404	4,734	33,138
Eight " ..	2,046	14,322	2,046	16,368
Nine " ..	680	5,440	680	6,120
Ten " ..	231	2,079	231	2,310
Eleven " ..	68	680	68	748
Twelve " ..	16	176	16	192
Thirteen " ..	4	48	4	52
Total 1944-45 ..	518,293	920,427	518,293	1,438,720
1943-44 ..	503,140	903,577	503,140	1,406,717
1942-43 ..	491,121	891,221	491,121	1,382,342
1941-42 ..	487,674	895,558	487,674	1,383,232

(a) Under 16 years of age.

§ 3. Commonwealth Widows' Pensions.

1. **General.**—The Widows' Pension Act operated from 1st July, 1942, and provided for the payment of a pension, subject to certain conditions of residence, character, property and nationality, (a) of £78 per annum (£1 10s. per week) to widows maintaining one or more children under 16 years of age; and (b) of £65 per annum (£1 5s. per week) to widows not maintaining children, but who are not less than 50 years of age. The rate for widows in class (a) was increased from 5th April, 1944 to £83 4s. per annum (£1 12s. per week, and from 18th September, 1945 to £97 10s. per annum (£1 17s. 6d. per week), and for widows in class (b) was increased from 5th April, 1944 to £70 4s. per annum (£1 7s. per week). The value of real and personal property permissible in respect of class (a), after deductions of charges and encumbrances thereon and excluding the value of a house owned and resided in, together with furniture and personal effects, must not exceed £1,000. For class (b) £100 is the maximum. The rate of pension is reducible by the amount by which a widow's other income exceeds £32 10s. per annum (12s. 6d. per week), and, in the case of a widow in class (b), by £1 per annum for every complete £10 by which the value of her real and personal estate, as defined above, exceeds £50.

Board and lodging received is regarded as income, and, in the case of widows in class (a), 5 per cent. of the value of the real personal property as defined above, or the net income therefrom, whichever is the greater. Payment by way of gift or allowance from a son or daughter is not regarded as income. Pensions may not be received at the same time under the Invalid and Old-age and Widows' Pensions Acts.

The Act also provided, in respect of widows under 50 years of age not maintaining children, for the payment, in the case of necessitous circumstances, of an allowance of £1 5s. per week, which was increased to £1 7s. per week from 5th April, 1944, and to £1 12s. 6d. per week from 18th September, 1945, for a period not exceeding 26 weeks immediately after the death of the husband.

The term "widow" includes a dependent female (i.e., a woman, who for not less than three years immediately prior to his death has been living with a man, though not legally married to him, on a permanent and *bona fide* domestic basis); a deserted wife; a woman whose marriage has been dissolved and who has not remarried; and a woman whose husband is an inmate of a hospital for the insane.

The first payment under the Act was made on 27th July, 1942. The number of pensions current at 30th June, 1945 was 44,155 and the amount paid during 1944-45 was £2,965,446. The following table shows details of widows' pensions paid in each State in the year 1944-45 and for Australia for the years 1943-44 and 1942-43.

COMMONWEALTH WIDOWS' PENSIONS AT 30th JUNE, 1945.(a)

State.	Pensions Current.(b)		Children for whom Pensions Payable.	Average Four-weekly rate of Pension.	Amount paid in Pensions during 1944-45.	
	Number.	Per 10,000 of Population.			Amount.	Per head of Population.(c)
			No.	£ s. d.	£	s. d.
New South Wales(d)	17,022	58	6,924	5 10 0	1,200,589	8 4
Victoria	12,614	63	3,575	5 2 7	799,652	8 0
Queensland	6,492	60	2,332	5 6 2	436,943	8 2
South Australia(e) ..	3,569	56	1,023	5 2 10	231,932	7 4
Western Australia ..	2,894	59	812	5 2 4	192,763	7 11
Tasmania	1,564	63	618	5 6 0	103,567	8 5
Total 1944-45 ..	44,155	60	15,284	5 6 1	2,965,446	8 1
1943-44 ..	42,212	58	16,107	5 6 8	2,800,702	7 8
1942-43 ..	38,402	53	16,214	5 5 0	2,358,998	6 7

(a) The Commonwealth Government commenced to pay Widows' Pensions from 1st July, 1942.
 (b) Excludes nine (1944-45), eight (1943-44) and six (1942-43) pensions in respect of pensioners in Benevolent Asylums. (c) Based on mean population for the financial year. (d) Includes Australian Capital Territory. (e) Includes Northern Territory.

§ 4. Commonwealth Maternity Allowances.

1. General.—The Maternity Allowance Act 1912-1944 makes provision for the payment of maternity allowances. The most important conditions in the original Act were that the sum of five pounds was payable in the case of each confinement resulting in the birth of a viable child whether such child was born alive or dead. The mother must be a native of Australia or intend to settle permanently therein. No payment is

made to aliens. The Act was amended in May, 1942, to provide for the allowance to be paid to aboriginal natives of Australia, subject to certain conditions. The Financial Emergency Act 1931 reduced the allowance payable to £4 and limited the application of the original Act to those cases where the combined income of husband and wife did not exceed £260 (reduced to £208 by the Financial Emergency Act 1932) in the previous 12 months. There were further subsequent changes and at 30th June, 1943, the income limit was £247, with an additional £13 in respect of each previous living child under 14, the maximum being £338. The amount of the allowance was £4 10s. where there was no previous living child under 14 years of age, £5 where there were one or two previous living children under 14 and £7 10s. where there were three or more such children.

By an amendment to the Act in March, 1943, the income limit provisions were repealed and the allowances payable in respect of births from 1st July, 1943, were:—Where there are no other children under 14 years of age, £5; where there are one or two children under 14, £6; and where there are three or more children under 14, £7 10s.; together with the payment of £1 5s. for each of the four weeks before and after the birth of a child. By a further amendment, which operated from 5th April, 1944, the age of children taken into account was increased from 14 to 16 years of age, and the payment of £1 5s. per week was increased to £1 17s. 6d. per week when twins are born and to £2 10s. per week when triplets are born.

The following table gives a summary of the working of the Maternity Allowance Act for the five years 1938–39 and 1941–42 to 1944–45:—

MATERNITY ALLOWANCES : SUMMARY.

Year.	Claims Paid.	Claims Rejected.	Amount Paid.	Cost of Administration (approximate).	Cost per £100 allowance paid (approximate).
	No.	No.	£	£	£ s. d.
1938–39 ..	80,916	6,272	436,614	16,959	3 17 8
1941–42 ..	66,391	12,790	358,538	11,717	3 5 4
1942–43 ..	51,956	15,872	281,052	10,000	3 11 2
1943–44 (a) ..	149,067	3,564	2,287,000	18,000	0 15 9
1944–45 ..	159,621	667	2,542,801	19,000	0 14 11
Aggregate— 1912–13 to 1944–45 ..	3,696,621	108,684	21,544,746	463,455	2 3 0

(a) Income qualification was abolished from 1st July, 1943.

2. Claims paid in each State.—The following table shows the number of maternity allowance claims paid in each State during the same five years:—

MATERNITY ALLOWANCES : CLAIMS PAID IN EACH STATE.

Year ended 30th June—	N.S.W. (a)	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	Total.
	No.	No.	No.	No.	No.	No.	No.	No.
1939	30,860	20,819	12,880	7,162	5,213	3,940	42	80,916
1942	24,481	16,120	12,113	5,724	4,320	3,620	13	66,391
1943	19,182	11,874	9,651	4,197	4,025	3,018	9	51,956
1944	57,792	38,653	23,743	12,636	10,439	5,804	(b)	149,067
1945	61,755	40,582	26,432	14,361	10,909	5,582	(b)	159,621
Total, 1912–13 to 1944–45 ..	1,460,696	960,323	557,562	321,678	237,073	158,165	1,124	3,696,621

(a) Includes Australian Capital Territory.

(b) Included with South Australia.

3. **Claims Paid at the Various Rates.**—The following table shows the number of claims granted in each State at the various rates in respect of maternity allowances (see p. 251), chargeable to the National Welfare Fund during the year 1944-45:—

MATERNITY ALLOWANCES : CLAIMS PAID IN EACH STATE, 1944-45.

State.	Single Births.			Multiple Births.						Total number of claims granted.
	£15.	£16.	£17 10s.	Twins.			Triplets.			
				£20.	£21.	£22 10s.	£25.	£26.	£27 10s.	
	No.	No.	No.	No.	No.	No.	No.	No.	No.	
N.S. Wales(a) ..	23,292	27,439	10,277	237	340	161	1	7	1	61,755
Victoria ..	15,670	18,496	5,927	173	221	90	2	2	1	49,582
Queensland ..	9,566	11,448	5,098	94	138	84	2	..	2	26,432
Sth. Australia(b)	5,576	6,597	2,022	58	83	23	..	1	1	14,361
Western Australia	3,830	5,087	1,860	34	77	20	..	1	..	10,909
Tasmania ..	1,826	2,343	1,350	20	22	21	..	..	..	5,582
Total ..	59,760	71,410	26,534	616	881	399	5	11	5	159,621

(a) Includes Australian Capital Territory.

(b) Includes Northern Territory.

§ 5. Commonwealth Unemployment and Sickness Benefits.

1. **General.**—A very important addition was made to Commonwealth social legislation when the Unemployment and Sickness Benefits Act received the Royal Assent on 5th April, 1944.

The Act came into operation on 1st July, 1945, and is financed from the National Welfare Fund. The first payments were made on 19th July, 1945.

Persons eligible include all males between the ages of 16 and 65 years and all females between the ages of 16 and 60 years who have lived in Australia for the twelve months immediately preceding a claim for benefit and who are not qualified to receive a service pension under the Soldier's Repatriation Act or an invalid, old-age or widow's pension.

The payment of unemployment benefit is subject to the claimant being capable of undertaking and willing to accept suitable employment. Except where the applicant lives in remote or inaccessible areas of Australia or where for some good reason it is impossible to do so, the payment of sickness benefit is subject to the production of a medical certificate or some other satisfactory evidence.

2. **Rates of Benefits.**—The rates of benefits for both unemployment and sickness are as follows:—

Unmarried male or female—				s.	d.
16 years and under 17 years	..	..	..	15	0 per week.
17 " " 18 "	..	..	..	15	0 "
18 " " 21 "	..	..	..	20	0 "
21 years and over	..	..	..	25	0 "

A married person, whether adult or minor, may receive an additional 20s. per week for a dependent spouse and 5s. per week for an unendowed child.

All benefits are subject to a means test which disregards the value of property owned by claimant and permits the possession of income up to the following amounts:—

Unmarried male and female—				s.	d.
16 years and under 17 years	..	..	..	5	0 per week.
17 " " 18 "	..	..	..	10	0 "
18 " " 21 "	..	..	..	15	0 "
In all other cases	..	..	..	20	0 "

3. **Means Test.**—In applying the means test for sickness benefit, any amount up to 20s. per week received by claimant from a friendly society or other approved benefit society is disregarded. For the purpose of calculating unemployment benefit, the income of the family group is taken into account, but in the case of sickness benefit the claimant's income only will be considered in determining whether there shall be reduction in benefit because of the possession of other income.

Where a person is entitled to some other payment such as war pension or worker's compensation in respect of the disability for which he claims sickness benefit, payment will be made only to the extent to which such other payment is less than the amount of benefit.

In the case of unemployment the Act provides for payment of benefit for the duration of the unemployment, and in the case of sickness for the duration of temporary incapacity. Where incapacity through sickness becomes permanent, an invalid pension may be granted, subject to the conditions governing the grant of invalid pensions.

4. **Waiting Period.**—There is a waiting period of seven days in respect of which unemployment or sickness benefit is not payable.

5. **Special Benefit.**—In cases of hardship where a person is not qualified for either sickness or unemployment benefit by reason of his inability to comply with one or other of the statutory requirements, a special benefit, at a rate not exceeding that which might otherwise have been payable, may be authorized.

6. **Administration.**—For convenience of administration, Commonwealth Employment Service Officers act as Registrars and in their offices are officers of the Department of Social Services to attend to the detailed duties with the exception that in parts of Queensland and the districts of Newcastle, New South Wales, Canberra, Australian Capital Territory and Adelaide, South Australia, Social Service officers have the sole control. Payment of benefits is made by cheques issued by the Deputy-Director of Social Services in the metropolitan areas and by Registrars in country districts.

§ 6. Hospital Benefits Act.

Under this Act, which was assented to on 11th October, 1945, the Commonwealth Government has entered into an agreement with the States to pay to the States the benefit rate of six shillings per day for each bed occupied, provided the States agree to abolish the means test for admission into public wards and to cease charging fees to patients admitted.

The allowance of six shillings per day provided by the Commonwealth was given with the object of reimbursing the States the amount of money they would lose because of the abolition of fees in public wards and for the loss of any charitable donations. The Commonwealth Government has undertaken to increase the amount if the States can prove that the costs of running hospitals have increased.

The agreement provides for the Commonwealth to pay a similar amount for intermediate and private-ward patients in public hospitals towards the cost of hospital treatment, and for the State Government to reduce the hospital fees by the equivalent of the benefit rate, thus relieving the patients of fees to this extent.

Private hospitals are entitled to claim six shillings a day for each occupied bed. These hospitals must be approved by a joint committee of Commonwealth and State Health authorities before payment of benefit is made. The hospitals are required to reduce the account by the amount of the benefit received from the Commonwealth.

The Commonwealth and States have agreed to form a National Hospitals Commission of Commonwealth and State representatives, the functions of which will be to advise the Commonwealth and State Governments on any hospital matters referred to it by the Commonwealth or State Governments.

§ 7. Tuberculosis Act.

This act was assented to on 11th October, 1945, and embodies the following four principles:—

- (a) The earlier the disease is recognized the better the prospect of recovery for the patient and the better from the point of view of the community. Accordingly, the Commonwealth proposal is aimed at encouraging the States to establish additional diagnostic facilities. Section 4 of the Act provides for the Commonwealth to subsidize pound for pound the expenditure of the States in the maintenance of diagnostic facilities, such as clinics, dispensaries, X-ray equipment, etc. The Commonwealth is to provide up to a maximum of £50,000 per year on this basis.
- (b) The Commonwealth will pay to the States a subsidy of six shillings a day per bed occupied in tuberculosis hospitals. Payment is subject to the condition that free treatment is given and no fees are charged in public wards.
- (c) Many patients, after a period in a hospital or sanatorium, require further care. To assist the States to extend after-care facilities, the Commonwealth proposes to make available up to £50,000 per annum, on a pound for pound basis, for maintenance expenditure on after-care facilities established after the commencement of the Act.
- (d) Medical authorities are agreed that an adequate level of nutrition should be maintained as a first line of resistance to tuberculosis. To this end, the Government will provide special allowances for the families of sufferers from tuberculosis. This allowance will be paid only in those cases where the fight against the disease will be positively assisted. It is not an automatic grant to all cases of tuberculosis.

§ 8. Pharmaceutical Benefits Act.

This Act passed all stages of the Commonwealth Parliament in March, 1944. It embodied a scheme for providing pharmaceutical benefits to all persons ordinarily resident in Australia. This Act was the subject of a High Court action and, as a result, it became impossible to put it into effect.

CHAPTER IX.

PUBLIC HYGIENE.

§ 1. Public Health Legislation and Administration.

Reference to the various public health authorities, Commonwealth and State, their functions, and the legislation administered, may be found in earlier issues of the Official Year Book (see No. 22, pp. 493-5).

§ 2. Inspection and Sale of Food and Drugs.

Legislation in force in all States provides for the inspection of food and drugs with the object of ensuring that all those goods which are sold shall be wholesome, clean and free from contamination or adulteration; and that all receptacles, places and vehicles used for their manufacture, storage or carriage shall be clean. For further particulars in this connexion, and with respect also to the sale and custody of poisons, reference should be made to Official Year Book, No. 22, pp. 495-7.

§ 3. Supervision of Dairies, Milk Supply, Etc.

1. **General.**—In earlier issues (see No. 22, p. 498), reference is made to the legislation in force in the various States to ensure the purity of the milk supply and of dairy produce generally.

2. **Number of Dairy Premises Registered.**—The following table shows, so far as the particulars are available, the number of dairy premises registered and the number of cows in milk thereon. In some States registration is compulsory within certain proclaimed areas only.

DAIRY PREMISES REGISTERED, AND COWS IN MILK THEREON, 1944.

Particulars. -	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust. (a)	Tasmania.
Premises registered ..	19,541	23,140	24,900	13,422	356	6,688
Cows in milk thereon ..	609,867	581,310	744,025	128,953	13,940	(b)

(a) Premises within a district extending 25 miles north and 60 miles south of Perth only.
available.

(b) Not available.

§ 4. The National Health and Medical Research Council.

In 1926 the Commonwealth Government established a Federal Health Council, in accordance with a recommendation of the Royal Commission on Health (1925), "for the purpose of securing closer co-operation between Commonwealth and State Health Authorities". This Council held sessions each year except in 1932. In 1936, the Commonwealth Government decided to create a body with wider functions and representation, and the National Health and Medical Research Council was established with the following functions:—

- To advise Commonwealth and State Governments on all matters of public health legislation and administration, on matters concerning the health of the public and on medical research;
- To advise the Commonwealth Government as to the expenditure of money specifically appropriated as money to be spent on the advice of this Council;
- To advise the Commonwealth Government as to the expenditure of money upon medical research and as to projects of medical research generally;
- To advise Commonwealth and State Governments upon the merits of reputed cures or methods of treatment which are from time to time brought forward or recognition.

The Council consists of the Commonwealth Director-General of Health (as Chairman), two officers of his Department, the official head of the Health Department in each State, together with representatives of the Federal Council of the British Medical Association, the Royal Australasian College of Surgeons, the Royal Australasian College of Physicians, and (jointly) the four Australian Universities having medical schools. A prominent layman and laywoman, appointed by the Commonwealth Government, also serve on the Council.

The first session of the National Health and Medical Research Council met at Hobart in February, 1937; the eighteenth session met at Canberra in November, 1944.

Under the Medical Research Endowment Act 1937, the Commonwealth Government has made an annual appropriation of funds to provide assistance:—

- (a) to Departments of the Commonwealth or of a State engaged in medical research;
- (b) to Universities for the purpose of medical research;
- (c) to institutions and persons engaged in medical research;
- (d) in the training of persons in medical research.

Approved Research Institutions under this system now number 44. During the year 1944, grants numbered 28 in the following fields: bacteriology, biochemistry, chemotherapy, clinical medicine, dentistry, neurology, obstetrics, physiology and pharmacology, tuberculosis and virus diseases. In certain instances, equipment and apparatus have been made available by the Council; this has greatly facilitated some specialized lines of research.

The work that is being done under these grants is already yielding results; beyond this practical achievement, the original objectives of the Council are being attained in encouraging young graduates to take up research work and in securing a continuity and permanence of medical research in Australia. During recent years, researches very largely have been directed to problems associated with the war.

§ 5. The Commonwealth Department of Health.

1. **General.**—An Order-in-Council dated 3rd March, 1921, defined various functions to be performed by the Commonwealth Department of Health in addition to quarantine, which is the only specific public health power of the Commonwealth Parliament under the Commonwealth Constitution. Many essential services have been developed by the Department to meet current needs and to further public health throughout Australia. In earlier issues of the Official Year Book reference has been made to several features of this development, including: The Royal Commission on National Health, 1925 (see No. 22, pp. 509–10), the International Pacific Health Conferences (see No. 22, p. 510 and No. 29, p. 334), Industrial Hygiene (see No. 18, pp. 522–55), Tropical Hygiene (see No. 22, pp. 506–7, No. 25, pp. 416–7, and No. 32, p. 226), and the Commonwealth Advisory Council on Nutrition (see No. 32, p. 222). Reference to quarantine is made below (see § 6, par. 2.)

2. **The Commonwealth Serum Laboratories.**—The establishment for the preparation of Jennerian vaccine situated at Royal Park, near Melbourne, formerly known as the "Calf Lymph Depot" was in 1918 greatly enlarged by the Commonwealth. The remodelled institution is designated the "Commonwealth Serum Laboratories" and is administered by the Commonwealth Department of Health. The Laboratories are now installed in fully equipped buildings and a large staff is employed. At Broadmeadows a farm of 254 acres has been developed, under veterinary supervision, for the many thousands of animals required for the work of the Laboratories.

The list of biological preparations produced by the laboratories has been extended until at the present time almost the whole range of these products is manufactured and Australia is practically independent of other countries in thus producing its own requirements. War needs greatly increased all activities. Penicillin is being produced in quantities sufficient for Service and civilian needs. Constant research is

being conducted into every relevant aspect of bacteriology and immunology and new sera and prophylactic agents are being tested as the growth of medical knowledge opens up new avenues of treatment, prevention and diagnosis. Other original and applied research relating to all aspects of public health is maintained. The laboratories serve as the national centre for the maintenance in Australia of the international standards of the Permanent Commission on Biological Standards of the League of Nations.

For the past twenty years the production of veterinary biological products has been a feature of the work of the laboratories. In recent years an extensive development has occurred in this direction and the products are being used in greatly increased amounts in all States for the prevention or treatment of diseases in domestic animals and stock.

3. The Commonwealth Health Laboratories.—The twelve Health Laboratories of the Department are situated at strategic points throughout Australia. They are located at Darwin, Cairns, Townsville, Rockhampton, Toowoomba, Lismore, Bendigo, Launceston, Hobart, Port Pirie, Kalgoorlie and Broome. These laboratories were established as an essential part of the quarantine system but were also to undertake research into local health problems and to provide medical practitioners of each district with up-to-date facilities for laboratory investigation and diagnosis. It was realized that co-operation between the general practitioner with his clinical observations and knowledge of the environment of disease on the one hand, and the staff of a well-equipped laboratory on the other hand, is essential to the efficient investigation of disease and the effective operation of control measures.

From this standpoint, the laboratories have already proved their value in the determination of Weil's disease and endemic typhus in North Queensland, in the investigation of special local problems at Darwin, of undulant fever throughout Australia, of silicosis and tuberculosis at Kalgoorlie and of plumbism at Port Pirie. In these investigations close co-operation has existed with State and local health and hospital services; especially is this so in Queensland where collaboration has yielded exceptionally valuable results in differentiating the groups of fevers hitherto unclassified in that State. In this investigational work, as well as in more routine activities, the laboratories have at their disposal the full resources and technical and specialist facilities available at the Commonwealth Serum Laboratories and the Sydney School of Public Health and Tropical Medicine.

A major part of the work performed at the Kalgoorlie Laboratory, since its establishment in 1925, has been the medical examination, on behalf of the State Department of Mines, of employees and applicants for employment in the metalliferous mines in Western Australia. These examinations are performed in accordance with the provisions of the State Mines Regulation Act and the Mine Workers' Relief Act, the objects of which are to provide a healthy body of men for the industry and to free the industry of, and protect the future of, those found to be suffering from serious pulmonary disease. The examinations include clinical, laboratory and radiographic investigation. By means of a mobile X-ray unit an annual tour is also made of outlying mining centres.

X-ray facilities are also provided at the Bendigo Laboratory, as part of the campaign against tuberculosis, for the examination of miners and other radiographic work in the district.

4. The School of Public Health and Tropical Medicine.—The Commonwealth Government, under an agreement with the University of Sydney, established a School of Public Health and Tropical Medicine at the University of Sydney as from 4th March, 1930, for the purpose of training medical graduates and students in the subjects of public health and tropical medicine. The organization of the Australian Institute of Tropical Medicine at Townsville was merged in the new school, and the staff, equipment and material were transferred to Sydney.

The work of the school comprises both teaching and investigation. Courses are held for the University post-graduate diploma of public health and the diploma of tropical medicine and tropical hygiene. Lectures are given in public health and preventive medicine as prescribed for the fifth year of the medical curriculum. Other classes include students in architectural, social and school hygiene, and lay officers and nurses in the tropical services and missionaries. In addition to this work, throughout

the war all the resources of the School were made available for the training of medical and hygiene officers and other ranks from all the Services of the Australian and Allied Forces.

Investigational work covers a wide field of public health and medical subjects, both in the laboratory and in the field. Field work has been carried out not only in Australia but in co-operation with the local administrations in Papua, New Guinea, Norfolk Island and Nauru. Further details may be found in previous issues of the Official Year Book (see No. 29, p. 334).

5. **The Australian Institute of Anatomy.**—Information concerning the Australian Institute of Anatomy at Canberra is given in previous issues of the Official Year Book (see No. 32, p. 919). In 1931 the Institute became an integral part of the Commonwealth Department of Health. The work of the Institute on general problems of comparative anatomy has now been concentrated on aspects of structure and function with special reference to the development of the growing child. Biochemical and biological research in this field is being developed in close association with the model kindergarten centres established by the Department in each capital city (see par. 8 below). Work in specialized aspects of nutrition has steadily increased. The Institute now plays an important part in research and the scientific application of nutritional knowledge under Australian conditions, including, in recent years, active service and war-time conditions of civilian rationing. The background of comparative anatomy and the museums of the Institute are maintained as part of the general plan of work, and an expert zoologist is a member of the body of research workers at the Institute. See also Chapter XXVIII. "Miscellaneous".

6. **The Northern Territory Medical Service.**—As from 1st April, 1939, the Commonwealth Department of Health assumed administrative responsibility for the medical and health services of the Northern Territory, absorbing the Northern Territory Medical Service. The Health services of Darwin were strengthened with the growing importance of that town as the northern gateway to Australia and as an administrative and service centre. A new hospital at Darwin was built and the hospital at Alice Springs enlarged. In normal times the medical officer of the latter hospital acts as the flying doctor for the local base of the Australian Aerial Medical Services which provide for pilot, aircraft and ground services. Military control operated after the entry of Japan into the war.

7. **National Fitness.**—Health authorities in Australia have closely followed the world-wide movement for the advancement of physical fitness and in several States active work has been proceeding over some years. In 1938, following a recommendation of the National Health and Medical Research Council, the Commonwealth Government agreed to appoint a Commonwealth Council for National Fitness, under the Commonwealth Minister for Health, to effect collaboration of Commonwealth, State, and local government authorities in the movement. Meetings of this Council have been held at regular intervals; a seventh session was held in September, 1943. Meanwhile active State Councils have been formed in all States. As a result of the recommendations of the central Council, the Commonwealth Government agreed to make available an annual sum of £20,000 for five years and grants were allocated to each State for purposes of organization and to each of the six Australian Universities to establish lectureships in physical education. In July, 1941 a National Fitness Act was passed by the Commonwealth Parliament to ensure greater permanence to the movement. The movement continues to develop and to gain public interest and support throughout Australia.

8. **The Pre-school Child.**—Sessions of the National Health and Medical Research Council and the reports of the Commonwealth Advisory Council on Nutrition have called attention to the need for greater effort throughout Australia directed towards the care of the growing child, especially during the pre-school period. Movements for the care of the infant and the welfare of the school child are already developed by State authorities as recorded in §§7 and 8 below. The Commonwealth Government felt that more could be done for the child of pre-school age, and it was decided to give a lead by making it possible to demonstrate what could be done and the practical methods which could be applied.

The Commonwealth Government therefore decided to establish in each capital city a pre-school demonstration centre, and in order to achieve the best results in association with those who have had experience in this field it has secured the co-operation of the Federal Organization of Kindergarten Unions which is operating under the title of "The Australian Association for Pre-school Child Development". A suitable site was secured in each capital city and the necessary school structure was built. The administration of these buildings is under the direction of the local Kindergarten Union, but the employment of staff and the technical methods used are approved by the Commonwealth Department of Health. This applies in so far as the educational side is concerned, and in this field advantage is being taken of the opportunity to try new methods and to make systematic records of observations with the object of securing reliable knowledge of the educational technique of this pre-school period.

Along with this educational practice there proceeds also the study of physiological requirements of the child and of the interaction between physical and mental health under varying conditions. The children available at these centres provide a considerable mass of human material for control and study, which is of great value in view of the importance of the study of growth and of nutrition of their age-period. Not only are routine measurements made of height, weight and other bodily data, but problems of nutrition are studied in detail. The medical work at each of the States centres is carried on on a uniform basis, according to a scheme formulated at, and directed from, the Australian Institute of Anatomy, Canberra, where parallel investigations on the laboratory side are being undertaken.

9. Organization for the Control of Cancer.—The persistent increase in cancer mortality has led to the development in Australia of a national organization directed towards the control of this disease. The Commonwealth Department of Health has actively participated in this movement. Since 1928 the Australian Cancer Conferences, convened by the Department, have provided an opportunity each year for those actively engaged in the campaign against the disease to meet for the discussion of problems and the determination of lines of action and further development. The tenth conference in this series met in New Zealand in February, 1939, and so marked an association which has been maintained between Australia and the Dominion since the inception of the conferences.

A large amount of radium purchased in 1928 by the Commonwealth Government for use in treatment and research has been distributed on loan to treatment centres throughout Australia. Under the terms of this loan, treatment at well-equipped clinics is available to all requiring it, irrespective of ability to pay. This work is co-ordinated by the Department. Records of treatment and the results obtained are kept by all treatment centres on uniform lines and are collected and analysed. These records, in respect of certain parts of the body, are also collated in accordance with the international inquiry which was carried out under the auspices of the Cancer Commission of the Health Organization of the League of Nations in collaboration with the International Radiological Association.

Close co-operation is maintained between research workers, physicists and biochemists and the medical men engaged in the clinical investigation and treatment of the disease, so that problems are mutually investigated and treatment is applied with the highest attainable degree of scientific accuracy.

Realizing the essential importance of accuracy in determining the quality of radiation used in the treatment of cancer and in measuring the dosage of this radiation actually delivered to the tumour, and the need for the investigation of physical problems in connexion with the utilization of X-rays and radium in the treatment of disease, the Commonwealth Department of Health has now extended the work of the Commonwealth Radium Laboratory, which was established in 1929, to include the investigation of the physical problems of radiation therapy generally. This laboratory, which is now known as the Commonwealth X-ray and Radium Laboratory, was established at the University of Melbourne by agreement with the Council of the University, and is maintained,

controlled and staffed by the Commonwealth Department of Health. It is accommodated in a separate laboratory building of sixteen rooms specially designed for X-ray and radium work, and is well provided with all necessary equipment for research work, including a high-tension generator capable of supplying 500,000 volts to an X-ray tube. This laboratory is actively at work and its specialist officers co-operate closely with the local physical services which are being developed at the Universities in the other capital cities of Australia. The laboratory also continues its earlier work of production of radon for treatment, the repair of radium apparatus, and research into problems of treatment and protection. During the year 1943 a total quantity of 67,540 millicuries of radon was prepared and issued by this laboratory and the associated centres in Sydney, Adelaide, Brisbane and Perth, and in 1944 a total quantity of 69,676 millicuries was issued. Used in the treatment of cancer and for research purposes this production represents a continuing increase over the output of previous years.

10. **Veterinary Hygiene and Plant Quarantine.**—In 1927 Directors were appointed to control divisions of the Commonwealth Department of Health which have been created to deal with veterinary hygiene and plant quarantine.

§ 6. Control of Infectious and Contagious Diseases.

1. **General.**—The provisions of the various Acts in regard to the compulsory notification of infectious diseases and the precautions to be taken against the spread thereof may be conveniently dealt with under the headings—Quarantine; Notifiable Diseases, including Venereal Diseases; and Vaccination.

2. **Quarantine.**—The Quarantine Act is administered by the Commonwealth Department of Health, and uniformity of procedure has been established in respect of all vessels, persons and goods arriving from overseas ports or proceeding from one State to another, and in respect of all animals and plants brought from any place outside Australia. In regard to interstate movements of animals and plants, the Act becomes operative only if the Governor-General be of opinion that Federal action is necessary for the protection of any State or States; in the meantime the administration of interstate quarantine of animals and plants is left in the hands of the States. The Commonwealth possesses stations in each State for the purposes of human and of animal quarantine.

Further information concerning the chief provisions of the Act and its administration is given in some detail in earlier issues of the Official Year Book (see No. 22, p. 500).

3. **Notifiable Diseases.**—A. **General.**—(i) *Methods of Prevention and Control.* Provision exists in the Health Acts of all the States for the observance of precautions against the spread and for the compulsory notification of infectious disease. When any such disease occurs, the local authority must at once be notified, and in some States notification must be made also to the Health Department. The duty of making this notification is generally imposed, first, on the head of the house to which the patient belongs, failing whom on the nearest relative present, and, on his default, on the person in charge of or in attendance on the patient, and, on his default, on the occupier of the building. Any medical practitioner visiting the patient is also bound to give notice.

As a rule the local authorities are required to report from time to time to the Central Board of Health in each State as to the health, cleanliness and general sanitary state of their several districts, and must report the appearance of certain diseases. Regulations are prescribed for the disinfection and cleansing of premises, and for the disinfection or destruction of bedding, clothing, or other articles which have been exposed to infection. Bacteriological examinations for the detection of plague, diphtheria, tuberculosis, typhoid and other infectious diseases within the meaning of the Health Acts are continually being carried out. Regulations are provided in most of the States for the treatment and custody of persons suffering from certain dangerous infectious diseases, such as small-pox and leprosy.

(ii) *Details by States.* In earlier issues of the Official Year Book (see No. 22, p. 501) information was given concerning the notification, etc., of diseases under State headings.

(iii) *Diseases Notifiable and Cases Notified in each State and Territory.* The following table, which has been compiled by the Commonwealth Department of Health, shows for each State and the Australian Capital Territory the diseases notifiable in 1944 and the number of cases notified. Diseases not notifiable in a State or Territory are indicated by an asterisk.

DISEASES NOTIFIABLE IN EACH STATE AND TERRITORY† AND NOTIFICATIONS FOR THE YEAR ENDED 31st DECEMBER, 1944.

Disease.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.†	Aust. Cap. Terr.	Aust.
Anchylostomiasis	*	..	25	..	*	..	..	..	25
Anthrax	..	..	..	..	..	..	..	..	..
Beriberi	*	1	..	..	..	..	..	..	1
Bilharziasis	..	..	..	..	..	..	..	..	..
Cerebro-spinal Meningitis	172	159	105	24	113	11	..	4	593
Cholera	..	..	..	..	..	..	..	..	..
Coastal Fever(a)	..	..	..	..	..	..	..	..	..
Dengue	*	*	*	*	*	*	*	*	..
Diphtheria	..	..	..	..	..	..	..	..	..
Dysentery(b)	1,402	1,247	510	395	491	442	..	7	4,494
Encephalitis Lethargica	..	29	106	27	7	..	..	..	169
Erysipelas	3	2	2	..	..	2	..	..	9
Filariosis	..	..	..	122	..	..	..	..	122
Helmintiasis	*	..	1	..	..	..	..	..	1
Hydatid	..	17	..	..	..	..	..	..	17
Influenza	*	*	7	..	..	..	..	..	..
Leprosy	7	..	13	3	83	..	..	..	106
Malaria(c)	*	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)
Measles	*	*	*	4,112	..	..	..	9	4,121
Plague	..	..	..	..	..	..	..	..	..
Polio-myelitis	15	9	7	2	5	3	..	..	41
Psittacosis	*	*	1	..	..	..	..	..	1
Puerperal Fever	205	20	136	11	1	35	..	..	408
Rubella	..	..	..	..	..	..	..	14	14
Scarlet Fever	5,618	7,824	616	1,665	282	149	..	110	16,264
Smallpox	..	..	..	..	..	..	..	..	..
Tetanus	*	6	16	..	..	..	..	..	22
Typhoma	*	..	..	..	..	..	..	..	..
Tuberculosis(d)	1,743	679	415	262	226	173	..	8	3,506
Typhoid Fever(e)	24	17	41	7	22	3	..	..	114
Typhus (Endemic)(f)	33	2	97	7	99	..	..	..	238
Undulant Fever	1	8	2	1	3	..	..	..	15
Weil's Disease(g)	*	*	7	..	..	..	..	..	7
Whooping Cough	*	*	*	560	..	..	..	1	561
Yellow Fever	..	..	..	..	..	..	..	..	..

* Not notifiable. † Northern Territory statistics of civilian notifications are not available.

(a) Includes "Mossman" and "Sarina" fevers. (b) Includes amoebic and bacillary. (c) Statistics inexact with varying practice with regard to relapses in Service cases infected overseas. (d) Includes all forms except in New South Wales and Northern Territory, where only pulmonary tuberculosis is notifiable. (e) Includes Enteric fever and Para-typhoid fevers. (f) Cases reported are all of the mild type known as Brill's Disease or Endemic Typhus (including Scrub and Urban types). (g) Includes Leptospirosis, Weil's and Para-Weil's Disease.

B. Venereal Diseases.—(i) General. The prevention and control of venereal diseases are undertaken by the States. Each State has a Venereal Diseases Act, or provisions in the Health Act govern the working of the measures taken to combat these diseases. Under these Acts notification has been made compulsory in every State except South Australia, where the Venereal Diseases Act has not yet been proclaimed. Steps have been taken to ensure free treatment by medical practitioners or in subsidized hospitals and clinics. Registered pharmaceutical chemists are allowed to dispense prescriptions only when signed by medical practitioners. Clinics have been established and, in some cases, beds in public hospitals have been set aside for patients suffering from these diseases.

Penalties may be imposed on a patient who fails to continue under treatment. Clauses are inserted in the Acts which aim at preventing the marriage of any infected person and the employment of an infected person in the manufacture or distribution of foodstuffs.

For several years the Commonwealth Government granted a subsidy to each of the States to assist in providing hospital treatment and administrative control of venereal diseases, but this subsidy has been discontinued.

In 1927 a Division of Tuberculosis and Venereal Disease was established in the Commonwealth Department of Health, with a medical officer as Director. This Division ceased to exist in April, 1932.

(ii) *Details by States.* A statement of the preventive provisions in each State, together with certain statistical data, appeared in earlier issues of the Official Year Book (see No. 22, pp. 503-4).

4. **Vaccination.**—(i) *Demand for Vaccine.* In New South Wales there is no statutory provision for compulsory vaccination, though in all the other States such provision exists. Jennerian vaccine for vaccination against small-pox is prepared at the Commonwealth Serum Laboratories in Melbourne. A moderate demand exists for the vaccine in Victoria, but in the other States the normal requirements are small, as is also the proportion of persons vaccinated.

(ii) *Details by States.* In earlier issues of the Official Year Book (see No. 22, pp. 504-5) information was given concerning the provisions regarding vaccination in each State.

§ 7. Medical Inspection of School Children.

1. **General.**—Medical inspection of school children is carried out in all the States. Medical staffs have been organized, and in some States travelling clinics have been established to deal with dental and ocular defects.

2. **New South Wales.**—A complete system of medical inspection of school children which came into operation in 1913 provides, in the metropolitan area, for the full medical examination of all children in first and fifth classes, and the review of children in other classes who have been found defective in previous years, and in country districts for the medical examination of every child at least twice during the usual period of school attendance (6-15 years). Parents are notified of the defects found, and urged to have them treated. In the metropolitan area these notices are reinforced by "follow-up" work of school nurses, who also arrange hospital and clinic treatment in many cases.

At the beginning of 1944 the staff comprised 15 medical officers (including 2 psychiatrists for the Child Guidance Clinics and 1 oculist), 18 dental officers, 8 dental assistants, 9 school nurses, 3 psychologists, 3 social workers, 2 speech therapists, and 6 clerical officers. Five medical officers were engaged in country districts, and 6 in the metropolitan area, and of the 18 travelling dental clinics, 10 were engaged in metropolitan schools and 8 in country districts. One of the metropolitan officers was also engaged half-time at the clinic attached to the Out-patients' Department of the Royal Alexandra Hospital for Children.

Special attention is paid to the supervision of the health of high school pupils, both girls and boys, and high schools in the metropolitan area, as well as certain country schools, are medically inspected annually.

Every student, before entering a Teachers' College, is medically examined, and any defects found must be remedied before final acceptance. Health supervision is maintained at these Colleges by women medical officers, who give courses of lectures on hygiene and physiology.

The Child Guidance Clinics examine free of charge children referred by school medical officers, teachers, officers of the Child Welfare Department and various outside bodies. Boys coming before the Children's Court are examined at the Clinic at the Metropolitan Boys' Shelter attached to the Court.

Similar examinations are made in the case of girl delinquents.

The medical and/or psychological examination of many children referred from schools and of certain children under the jurisdiction of the Child Welfare Department, Widows' Pensions Branch and the Society for Crippled Children is also carried out by medical officers of this service.

The following summary furnishes particulars of children medically examined in schools in 1944:—

Number fully examined (routine inspection)	..	..	56,976
Number reviewed	..	..	28,032
Of those examined—percentage notified for defects, medical and/or dental	..	..	42.80 per cent.

These figures do not include record of the medical examination and health supervision of children (1) in residence at the Glenfield Special School for backward children, and (2) attending the Department's Nursery Schools, which is carried out by women medical officers, assisted in the latter instance by school nurses.

The School Medical Service carries out regular and/or periodical investigations into problems affecting the health of children, and special investigations into outbreaks of infectious diseases occurring in schools. The sanitary condition of school buildings is also inspected.

The foregoing statement does not include record of the numerous medical examinations of teachers, and other Departmental work of a medical nature, done by the School Medical Service.

The cost of this service, excluding administration charges, for the year ended 30th June, 1944 was £35,277.

3. **Victoria.**—Medical inspection of school children was established in 1909. One of the objectives of the system is to have each child medically examined once every three years in its school life. In 1925 the Department concentrated on country work, and medical inspection has been undertaken since that date in country and rural districts, reaching the most remote corners of the State. In spite of the comparatively small medical inspection staff, the plan for triennial visits to State schools is being fairly well maintained and all State High Schools, nearly all other State schools in the country, and some in the densely populated inner metropolitan area are visited once in three or four years. Only a few of the registered and institutional schools are, however, visited.

At the medical inspection every child is first weighed and measured, tested for vision and hearing, then undressed to the waist and medically examined as for life assurance, but with a fuller investigation of many hygienic factors, which at that age greatly influence the health and growth of the child. Opportunity is also taken to teach the child healthy habits and how to correct faults, and to get its co-operation for the remedying of defects found. In schools with an attendance of 70 or more, the older boys are examined by a medical man and the older girls by a medical woman. School nurses employed by the Department are devoted to "follow-up" work, *i.e.*, visiting the homes and getting treatment for children found defective by the school medical officers. Owing to the smallness of the staff their work is confined to the metropolitan area.

In addition to the medical examination, each child in those schools visited by the school dentist receives dental treatment on entrance to school (if under 8 years of age), and each year thereafter, until it is 12 years of age, when it is left dentally fit. The present staff is arranged so that 3 dentists and 4 dental attendants are always on duty at the Melbourne Dental Centre, where children from the inner metropolitan schools are brought by the teacher for dental treatment. Two dentists with dental attendants and equipment travel along the railway line far enough to give one year's work, using practically every town large enough to provide a day's work as a base. The school committees of the outlying schools are notified of the visit, and the parents are invited to bring to the base all children eligible for treatment, *i.e.*, all children under 8 years of age, and all other children treated by the school dentists on previous visits. The time of another dentist is fully occupied treating the children in the three largest country centres,

Bendigo, Ballarat and Geelong. In each of these cities a centre with a dentist, dental attendant and equipment is established for about four months of the year, where children from the infant classes of the neighbouring schools are brought by the teacher or parents. Three dentists with dental attendants are in charge of three fully equipped dental vans, each of which has an annual itinerary.

A Nose and Throat Clinic for the treatment of children with defective tonsils and adenoids was established in June, 1942. This clinic consists of 6 beds and is staffed by 5 full-time hospital nurses, the operations being performed by visiting nose and throat specialists. A nominal fee of 15s. is charged for each operation. To the 30th June, 1944, 3,842 operations had been performed.

The staff of the medical branch consists of 7 full-time medical officers, 9 dentists, 10 dental attendants and 12 school nurses.

During the year ended 30th June, 1944, 29,745 children and 1,462 teachers were medically examined, and 25,376 children received dental treatment. In addition 8,562 homes were visited by the school nurses.

The cost of this service for the year 1943-44 was £31,670.

4. **Queensland.**—The School Health Services Branch, under the direction of the Chief Medical Officer, consists of three sections known as the Medical, Dental and Nursing Sections.

Medical inspection of schools and school children is carried out by one part-time officer under the general direction of the Chief Medical Officer, School Health Services. This officer, as far as possible, examines children for cardiac and pulmonary conditions, and in addition makes a thorough examination of all children referred to him by the school nurses.

The nurses now number fifteen. Each nurse is assigned a group of schools and is instructed to make a list at each school of those children who should be seen by the medical inspector at his next visit. She supervises the sanitation, cleanliness and ventilation of the school and notifies the head teacher of all infectious or verminous children or those suffering from impetigo, scabies, etc., who are then excluded. During 1944, school nurses examined 34,950 children. In the metropolitan area the nurses examine the teeth and report all eligible carious cases to the Dental Hospital for treatment.

The Department has in its employ a staff of 15 dentists. These officers are each assigned a district, which is not changed for three years unless for reasons which the Chief Medical Officer, on the recommendation of the Chief Dental Inspector, considers advisable. During 1944, 29,802 children were examined; 15,912 extractions were performed; and there were 20,638 fillings and 8,207 other treatments.

At the Wilson Ophthalmic School Hostel children suffering from trachoma are treated and educated. They are admitted from time to time on the recommendation of the part-time Ophthalmic Officer. Beneficial results have already been obtained. The Institution is situated at Eildon Hill, Windsor, and is fully equipped to treat all types of eye cases.

The work of Hookworm Control (the dealing with ankylostomiasis duodenale and Necator Americanus infestation) throughout the State is under the control of the Director-General of Medical Services and his deputy. This activity has resulted in a marked reduction in the incidence of this dangerous menace on the northern coastal belt. Several sisters of the School Health Services are seconded for hookworm duty. The personnel consists of a microscopist, a health inspector and two trained sisters.

In order to give the same medical and dental facilities to the children of the back country as are obtainable by city dwellers, a Rail Dental Clinic equipped on the most modern lines has been constructed. Two others, at a cost of £9,500 each, are in course of construction and will shortly be in commission. A motor car is carried on a railway wagon for use at each stopping place to visit the surrounding villages served by the rail centre.

This service cost £24,211 in 1943-44.

5. **South Australia.**—The system of medical inspection in force requires the examination of all children attending primary, junior technical, high and technical high schools. Children in the primary schools are examined in grades I, IV. and VII.; in the junior technical and high schools, children are examined in their second and fourth years. Reports are furnished to the parents of any remediable defects found during these examinations. The medical inspectors meet the parents after the examination of the children and give an address on the prevention and treatment of the conditions which were found during the inspection. After these lectures the parents are given an opportunity to ask questions regarding their children. When there is an epidemic or a threatened epidemic in a district, similar lectures are given and special visits paid to all the schools in that locality. All students are examined before they enter the Teachers' College. Medical and physiological tests are conducted four times during the course (2 years) on all candidates taking the Diploma of Physical Education. Courses of lectures in Hygiene and in First Aid are given to all College students.

The medical staff consists of a principal medical officer, 2 medical inspectors and a trained nurse. A psychologist, an assistant psychologist, a dentist, 2 dental assistants and a speech therapist are attached to the Medical Branch. The psychologist, in addition to examining retarded children and supervising their work in the opportunity classes, lectures to the students at the Teachers' College, and examines children referred by the Children's Court, or by the Children's Welfare Department, etc. The speech therapist examines children with defective speech, ascertains the nature of the defect and teaches the child how to overcome it.

During 1944, 12,647 children were examined by medical inspectors; of these 634 required notices for defective vision, 46 for defective hearing, and 1,174 for tonsils and adenoids. Three hundred and ten children were examined by the psychologist.

Of the 42,971 boys who have been examined in recent years 3.6 per cent. were wearing glasses at the time of the examination. The lenses were measured and the defects classified as follows:—myopia and myopic astigmatism, 475 (30.4 per cent.); hypermetropia and hypermetropic astigmatism, 955 (61.1 per cent.); and mixed astigmatism, 132 (8.5 per cent.).

The annual cost of these services is approximately £6,100.

6. **Western Australia.**—Under the Public Health Act 1911–1935 the medical officers of health appointed by the local authorities became medical officers of schools and of school children. The principle aimed at is that each child shall be examined twice during its school life, once between the ages of 7 and 8 years and again between the ages of 12 and 13 years. In the Health Department there are 2 full-time medical officers for schools, whose duty is to conduct medical examinations, and 2 school nurses are employed. During 1944, 14,195 (7,381 metropolitan and 6,814 country) children were examined. No school children were re-examined. There were 47 schools visited in the metropolitan area and 153 in country districts.

Three dental officers visited 66 schools and gave attention to 2,056 children. Cost of this service for 1943–44 was £4,892.

7. **Tasmania.**—During the year 1944 the School Medical Service occupied the full-time services of one medical officer and a large proportion of the time of another medical officer. In addition arrangements were made with six private practitioners to carry out medical inspection of school children in the areas in which they practised. This work also formed part of the duties of nine Government Medical officers and eight school nurses were engaged full-time on this work in association with the doctors.

Two dental clinics, one each at Hobart and Launceston, attended to the needs of children in those centres, while three mobile dental clinics were in operation in the North-West, North-East and Southern parts of the State.

The number of children examined during 1944 by medical inspectors was 13,650, of whom 7,666 had defects. First visits to dentists numbered 9,714 and repeat visits 9,415.

The cost of medical and dental services for the year ended June, 1944, was £9,456.

8 **Australian Capital Territory.**—By arrangement, education facilities are provided by the Education Department of New South Wales. The Commonwealth Department of Health, however, took over from the State in 1930 the medical inspection of school children and carried out examinations of entrants and those leaving during 1930.

Subsequent to 1931, examinations of entrants and those leaving the primary schools have taken place. During 1937 this examination was supplemented by examinations of all pupils of all rural schools (including Duntroon and Molonglo). No examinations were made in 1942. Since 1943 all primary pupils of Government schools in the Territory have been medically examined annually. During 1944 the examinations showed that 44.2 per cent. had dental defects, 6.0 per cent. had some pathological condition of the nasopharynx, 6.6 per cent. had eye defects, 1.3 per cent. had ear defects, 8.0 per cent. showed some evidence of minor chest deformity, and 0.7 per cent. were 10 per cent. or more underweight for their height and age. Of the pupils recommended for medical advice 40 per cent. received this advice, and 32 per cent. of those recommended for dental treatment received such treatment.

§ 8. Supervision and Care of Infant Life.

1. **General.**—The number of infantile deaths and the rate of infantile mortality for the last five years are given in the following table, which shows that during the period 1940 to 1944 no less than 25,746 children died in Australia (excluding Territories) before reaching their first birthday. Further information regarding infantile mortality will be found in Chapter XV. "Vital Statistics"—

INFANTILE DEATHS AND DEATH RATES.

State.	Metropolitan.					Remainder of State.				
	1940.	1941.	1942.	1943.	1944.	1940.	1941.	1942.	1943.	1944.
NUMBER OF INFANTILE DEATHS.										
New South Wales	758	942	877	860	749	1,169	1,322	1,230	1,212	1,080
Victoria ..	655	655	888	809	705	606	591	609	590	553
Queensland ..	201	244	234	291	258	520	598	502	587	510
South Australia ..	171	209	245	259	211	185	147	203	223	176
Western Australia	181	163	184	170	173	222	194	181	172	181
Tasmania ..	49	69	60	74	57	127	186	165	153	142
Australia(a) ..	2,015	2,282	2,488	2,463	2,153	2,829	3,038	2,899	2,937	2,642

RATE OF INFANTILE MORTALITY.(b)

New South Wales	38.01	42.12	37.73	31.86	26.45	39.71	45.02	42.10	40.03	34.51
Victoria ..	39.69	34.68	43.93	35.03	31.00	39.20	38.07	38.76	36.83	33.29
Queensland ..	37.40	40.23	37.49	37.46	30.18	34.58	38.08	33.57	37.95	31.93
South Australia ..	35.37	36.40	39.48	34.67	28.53	35.70	28.14	40.02	39.30	29.76
Western Australia	47.15	35.21	37.51	29.66	29.27	42.03	35.34	36.24	36.22	36.49
Tasmania ..	40.56	48.97	42.37	47.13	39.31	33.54	48.99	42.43	37.99	37.87
Australia(a) ..	38.98	38.62	39.98	33.91	28.95	38.18	40.59	39.17	38.54	33.65

(a) Excludes Territories.

(b) Number of deaths under one year per 1,000 births registered.

During recent years greater attention has been paid to the fact that the health of the community depends largely on pre-natal as well as after care in the case of mothers and infants. Government and private organizations, therefore, provide instruction and treatment for mothers before and after confinement, while the health and well-being of mother and child are looked after by the institution of baby health centres, baby clinics, crèches, visits by qualified midwifery nurses, and special attention to the milk supply, etc

2. **Government Activities.**—In all the States acts have been passed with the object of supervising and ameliorating the conditions of infant life and reducing the rate of mortality. Government Departments control the boarding out to suitable persons of the wards of the State, and wherever possible the child is boarded out to its mother or near female relative. Stringent conditions regulate the adoption, nursing and maintenance of children placed in foster-homes by private persons, while special attention is devoted to the welfare of ex-nuptial children. (See also in this connexion Chapter VIII. "Public Benevolence" etc.) Under the provisions of the Maternity Allowance Act 1912-1914, a sum of £5 is payable to the mother in respect of each confinement at which a living or viable child is born. Where there are already one or two children under 16 the amount payable is £6, and where there are three or more other children under 16 the amount payable is £7 10s. In addition an allowance of £1 5s. is made for each of the four weeks before and after birth of child. The allowance for the four weeks before and after birth is increased to £1 17s. 6d. per week when twins are born and to £2 10s. when triplets are born. Detailed particulars regarding Maternity Allowances are given in Chapter VIII. "Public Benevolence, etc."

3. **Nursing Activities.**—(i) *General.* In several of the States the Government maintains institutions which provide treatment for mothers and children, and, in addition, subsidies are granted to various associations engaged in welfare work.

(ii) *Details by States.* In earlier issues of the Official Year Book (see No. 22, pp. 515 and 516) information may be found concerning the activities of institutions in each State.

(iii) *Summary.* The following table gives particulars of the activities of the Baby Health Centres and the Bush Nursing Associations:—

BABY HEALTH CENTRES AND BUSH NURSING ASSOCIATIONS, 1944.

Heading.	New South Wales.	Victoria. (a)	Queensland. (a)	South Australia.	Western Australia. (a)	Tasmania.	Aust. Capital Territory.	Total
Baby Health Centres—								
Metropolitan No.	65	94	39	56	15	15	..	284
Urban-Provincial and Rural No.	182	178	129	16	16	26	10	557
Total No.	247	272	168	72	31	41	10	841
Attendances at Centres ... No.	1,201,815	758,440	308,424	184,579	132,793	79,907	11,072	2,677,030
Visits paid by Nurses ... No.	65,997	76,593	21,587	31,580	16,582	25,607	2,701	240,647
Bush Nursing Associations—Number of Centres ..	33	82	12	30	6	21	..	184

(a) Year ended 30th June, 1944.

(b) Excludes non-expectant mothers accompanying infants.

The number of attendances at the Baby Health Centres has increased very considerably in recent years. The following are the figures for the years 1939 to 1943:—1939, 1,869,770; 1940, 2,035,299; 1941, 2,128,961; 1942, 2,240,294; and 1943, 2,327,279.

CHAPTER X.

REPATRIATION.

§ 1. General.

An outline of the activities leading up to the formation of the Commonwealth Repatriation Commission was given in Official Year Book No. 15, p. 931. Some account was given also in the Official Year Book referred to, and in subsequent issues, of the policy and general activities of the Department, while detailed information was incorporated in regard to such matters as sustenance rates and pensions to soldiers and dependants. (See Official Year Book No. 17, pp. 598–601.) In 1943 the Australian Soldiers' Repatriation Act was amended by the incorporation of the recommendations of the Parliamentary Committee appointed to inquire into pensions and repatriation benefits. A general increase was made of approximately 20 per cent. in the rates of war pensions and increases were also made in other repatriation benefits.

The main activities of the Repatriation Commission at 30th June, 1944, were confined to the grant, review and assessment of war and service pensions, the provision of medical treatment, employment, vocational training, the renewal and repair of artificial replacements and surgical appliances, the grant and review of sustenance and living allowances, and the administration of the Soldiers' Children Education Scheme.

§ 2. War Pensions.

1. *General.*—Provision for the payment of war pensions to soldiers and their dependants was made by the Commonwealth Parliament in the War Pensions Act 1914 which came into operation on 21st December, 1914. This Act was repealed in 1920 by the Australian Soldiers' Repatriation Act. Particulars regarding pensions payable under both these Acts as amended are given on page 210 of the Official Year Book No. 34. Owing to limitations of space only some of the main features relating to war pensions under the Australian Soldiers' Repatriation Act 1920–1943 are shown in the following paragraphs :—

(i) *Eligibility for Pension.* There has been a considerable widening of the provision in this respect, to the benefit, mainly, of Members of the Citizen Military Forces who have not served outside Australia. These provisions are summarized as follows :—

- (a) A member of the Forces who served : (1) outside Australia ; (2) in the Territories of Australia, such as Papua and New Guinea ; or (3) within Australia in circumstances which can be regarded as actual combat against the enemy ; is covered for war pension purposes in respect of incapacity or death which may result from any occurrence happening during the whole period of service.
- (b) In other cases where a member served only in Australia, incapacity or death to be pensionable must have been attributable to service.
- (c) There is a third ground applicable to all in (a) and (b) who have had at least six months' camp service. This provides that, where a condition pre-existed enlistment, a pension may accrue if it is considered that such condition was aggravated by service.

(ii) *Ordinary Rates.* Where the daily rate of service pay was not in excess of 19s. the ordinary rate of pension for total incapacity is £5 per fortnight. Where the daily service pay exceeds 19s., the ordinary rate of pension for total incapacity increases to a maximum rate of £6 16s. per fortnight according to the rate of pay. The wife of a totally incapacitated member of the Forces receives £2 4s. and each child under 16 years of age 18s. per fortnight.

(iii) *Supplementation of Pension.* Where a member in receipt of a pension at the maximum rate is, because of his war disability, temporarily (for at least three months) precluded from earning, an additional pension, not exceeding £2 8s. per fortnight in the case of a married member and 30s. in the case of a single member, may be granted.

(iv) *Women's Nursing and Auxiliary Services.* Members of Women's Services are now entitled to pensions and other benefits as prescribed in the Act. Pension scales are those applicable to male members of the Forces in receipt of similar rates of pay.

(v) *Tuberculosis Cases.* In the case of a member of the Forces who served in a theatre of war and, at any time after discharge became or becomes incapacitated, or died or dies, from pulmonary tuberculosis, war pension is payable, and medical treatment is provided on application as if the incapacity or death resulted from an occurrence on service. (*See also Service Pension.*)

(vi) *Special Rates.* Those who have been totally blinded as the result of war service and those who are permanently totally incapacitated receive special pensions of £9 12s. per fortnight. In addition an attendant's allowance of £2 8s. per fortnight is payable to the war-blinded and to certain others who are deemed to be in need of an attendant. The wife and any children receive the same rates as shown in para (ii).

(vii) *Specific Disabilities.* In cases where the disability is amputation of a limb or total loss of vision in one eye, amounts ranging from 9s. to £4 12s. per fortnight are payable in addition to the statutory rate of pension and, in certain double amputation cases, allowances are payable for an attendant.

(viii) *Time Limit for Wives.* The time limit has been extended from seven years to fifteen years within which women must marry in order to be eligible as wives for pension in respect of the 1939-45 War. The children of any such marriage, whenever born, are also eligible. With regard to the 1914-19 War the time limit for wives, i.e., 30th June, 1938, remains, but in certain cases where a member of the Forces has married since that date an allowance not exceeding £2 4s. per fortnight may be granted to him in respect of his wife provided she performs duties essential to his welfare by reason of his war disability.

(ix) *Rates of Pensions in respect of Death.* (a) *Widows.* Where a member, whose daily rate of service pay was not in excess of 27s. 6d., dies as a result of war service, the rate of pension payable to his widow is £5 per fortnight. Where the service pay exceeds 27s. 6d. the rate of pension is higher, ranging from £5 9s. to £6 16s. per fortnight.

(b) *Children of Member.* The first child (under sixteen years) receives a pension of 35s. and each subsequent child 25s. per fortnight. In the case of children whose parents are both dead the rates payable are—each child up to 14 years of age 35s. and each child over 14 years and up to 16 years of age, 40s. per fortnight.

(x) *Widowed Mother on Death of Member.* A pension varying from £2 10s. to £6 16s. per fortnight according to the rate of pay of the member may be granted to a widowed mother, provided widowhood occurred either prior to or within three years after the death of the member.

2. *Appeal Tribunals.*—The principal Act was amended as from 1st June, 1929, to create tribunals to hear appeals in regard to war pensions. The War Pensions Entitlement Appeal Tribunal is empowered to hear and decide any appeal by or on behalf of ex-members of the Forces or their dependants against a decision of the Repatriation Commission that an incapacity or the death of an ex-member did not arise out of war service. Assessment Appeal Tribunals were created to hear and decide any appeal against a current assessment or a "Nil" assessment of war pension made by the Repatriation Commission in respect of an incapacity of an ex-member of the Forces which had been accepted as arising out of war service. Provision was made by subsequent legislation to enable the Tribunals to hear appeals by certain applicants for service pensions.

3. *War Pensions in Force.*—At 30th June, 1944, the number of war pensions was 244,462 and the amount paid in pensions £10,348,609. The outstanding features for 1943-44 were as follows:—

New claims granted	..	..	..	..	..	31,555
Claims rejected (gross)	..	..	..	..	..	35,616
Pensions reviewed ..	..	..	..	..	..	19,977
Pensions cancelled or discontinued	..	..	..	..	..	11,005
Deaths of pensioners	..	..	..	..	..	3,351
Number of pensions in force at 30th June, 1944	..	..	..	..	..	244,462
Annual pension liability at 30th June, 1944	..	..	..	..	..	£10,651,850
Amount paid in pensions during the year 1943-44	..	..	..	..	..	£10,348,609

At 30th June, 1944, special rate pensions of £9 12s. per fortnight were being paid to—

Blinded soldiers	180
Tubercular soldiers	1,134
Totally and permanently incapacitated soldiers	2,468

An analysis of the total number of new grants during the year reveals the following :—

Members (i.e., ex-soldier pensioners)	10,992
Wives of members	6,486
Children	10,010
Other dependants	4,067
	<u>31,555</u>

In the following table the number receiving pensions at 30th June, 1944, is shown for each class of pensioner :—

WAR PENSIONS IN FORCE AT 30th JUNE, 1944.

Class.	Number of Pensioners.
Orphan children	7,934
War widows	15,730
Soldiers	90,358
Children	48,941
Wives	68,430
Parents	12,568
Brothers and sisters	240
Others	249
Total	<u>244,462</u>

4. Number of Pensioners and Expenditure.—The following table shows the number of pensioners at 30th June, 1944, and the places where payments were made during 1943-44 :—

WAR PENSIONS : NUMBER OF PENSIONERS AND EXPENDITURE, 1943-44.

Where Paid.	Incapacitated Members of the Forces.	Dependants of—		Total.	Expenditure.
		Deceased Members.	Incapacitated Members.		
	No.	No.	No.	No.	£
New South Wales	32,596	12,072	42,515	87,183	3,661,182
Victoria	27,552	10,114	35,802	73,468	3,022,522
Queensland	10,308	3,592	13,467	27,457	1,177,089
South Australia	6,180	3,136	7,902	17,218	763,350
Western Australia	8,089	3,273	11,149	22,511	941,924
Tasmania	3,780	1,253	5,822	10,855	523,675
Total, Australia	88,595	33,440	116,657	238,692	10,089,742
London	1,471	1,597	1,981	5,049	227,821
Union of South Africa	292	120	309	721	31,046
New Zealand					
Other Overseas					
Total	90,358	35,157	118,947	244,462	10,348,609

(a) Includes £1,730,471 in respect of 1930-45 War.

The following table shows the numbers of pensions granted, claims rejected, pensions in force, and the amount paid in pensions for each of the years ended 30th June, 1931 and 1937 to 1944:—

WAR PENSIONS : SUMMARY, AUSTRALIA.

Year ended 30th June—	Pensions Granted.	Claims Rejected.	Pensions in Force.				Amount paid in Pension s.
			Incapaci- tated Members of the Forces.	Depend- ants of Deceased Members.	Depend- ants of Incapaci- tated Members.	Total.	
							£
1931 ..	11,555	920	75,316	35,617	172,389	283,322	7,996,180
1937 ..	5,098	2,508	77,076	29,122	145,308	251,806	7,683,086
1938 ..	19,993	8,357	77,315	28,562	151,337	257,214	7,761,307
1939 ..	6,794	7,541	77,151	27,571	144,571	249,293	7,819,286
1940 ..	2,469	4,846	76,462	26,388	134,027	236,877	7,682,240
1941 ..	2,851	5,193	75,767	25,937	123,787	225,491	7,488,531
1942 ..	8,907	9,448	76,641	27,679	116,919	220,339	7,501,911
1943 ..	19,771	17,337	81,240	31,333	114,280	226,853	8,366,996
1944 ..	31,555	35,616	90,358	35,157	118,947	244,462	10,348,609

5. **Cost of Administration.**—The administrative cost of the Repatriation Commission in 1943-44 was £437,882 representing 3.47 per cent. of the total cost of benefits disbursed. The administrative costs of the War Pensions Appeal Tribunals are included in the foregoing figure and totalled £23,180.

§ 3. Service Pensions.

1. **General.**—The payment of service pensions was provided for in the Australian Soldiers' Repatriation Act 1935, and the scheme has operated since 1st January, 1936.

Originally fixed on a lower scale, the rate of service pension for a member of the Forces now conforms to the rate of the invalid or old-age pension which at the end of December, 1945, was £3 5s. per fortnight. The maximum rate for the wife of a member is 44s. per fortnight, whilst 10s. per fortnight is payable for the eldest child under 16 years of age and 5s. per fortnight for each of the younger children up to three in number. The actual rate payable in any case is determined after taking into consideration all other income received and property (apart from the home) owned by the pensioner, and no service pension can be paid in any case where such other income and/or property exceeds certain specified limits. The allowed income at the end of December, 1945 was £117 per annum for a single man and £234 per annum in the case of a member and his wife. The allowed property maximum is £400 for each person.

If the income from all other sources is less than the annual amounts shown above, service pension becomes payable at such rate as will, with that other income, bring the total income of the pensioner (including service pension) up to the allowed maximum, provided, of course, that the pension cannot exceed the maximum rate specified for the particular case.

A female member of the forces was made eligible in 1936 for consideration of a service pension if she embarked for service abroad; previously she must have served in a theatre of war. In the same year an institutional rate of service pension not exceeding 12s. per fortnight was made available. This pension rate since 5th July, 1945 has been 23s. per fortnight, and benefits particularly inmates of mental asylums, who were previously excluded from the scheme.

Eligibility for service pensions may be established on the following grounds:—

- (a) Sixty years of age or more, provided the applicant served in a theatre of war, but eligibility on this ground applies only to the ex-soldier and not to his wife or children. In the case of a female member of the forces, the qualifying age is 55 years, and service abroad, not necessarily in a theatre of war, is sufficient.

(b) Permanently unemployable, provided the applicant served in a theatre of war (or, in the case of a female member, served abroad). Under this class pensions may be paid to the ex-soldier, his wife and children—up to four in number.

(c) Pulmonary tuberculosis, whether the applicant served in a theatre of war or not. Under this class also pensions are payable to the wife and children—up to four in number.

Only those applicants who qualify under Class (c) are entitled to receive both service and invalid pensions at the same time.

During the year 1941-42 the scheme was extended to veterans of the South African War 1899-1902, and by amending legislation in 1943 was further extended to members of the Forces of the 1939-45 War.

2. **Operations during Year.**—The following figures give the important details relating to the service pension scheme during 1943-44 :—

Claims granted during the year—

Members of the Forces	..	..	..	..	868
Wives	..	..	..	..	359
Children	..	..	..	..	177
					<u>1,404</u>

Claims rejected during the year—

Members of the Forces	..	..	..	..	482
Wives	..	..	..	..	272
Children	..	..	..	..	146
					<u>900</u>

Pensions cancelled or discontinued during the year	..	..	2,132
Deaths of pensioners during year	..	..	617
Pensions in force at 30th June, 1944	..	..	12,584
Annual pension liability on 30th June, 1944	..	..	£656,856
Amount paid in pensions during the year 1943-44	..	..	£652,534

3. **Number of Service Pensioners and Expenditure.**—The following table shows the number of service pensions in force and the expenditure since 18th January, 1936, when the scheme came into operation :—

SERVICE PENSIONS : SUMMARY, AUSTRALIA.

Pensions in Force—							
Year ended 30th June—	Old-age Members of Forces.	Permanently Unemployable.		Suffering from Pulmonary Tuberculosis.		Total.	Amount Paid in Pension.
		Members of Forces.	Dependants.	Members of Forces.	Dependants.		
	No.	No.	No.	No.	No.	No.	£
1936 ..	1,257	679	1,095	332	485	3,848	31,135
1937 ..	2,256	1,990	3,028	462	753	8,489	221,714
1938 ..	2,805	2,712	3,918	544	872	10,851	329,871
1939 ..	3,397	3,393	4,667	619	1,032	13,108	407,127
1940 ..	3,858	3,706	4,814	623	999	14,000	472,263
1941 ..	4,008	3,705	4,734	655	979	14,081	511,103
1942 ..	4,294	3,772	4,591	650	939	14,246	579,656
1943 ..	4,270	3,695	4,221	452	646	13,284	660,109
1944 ..	4,235	3,628	4,025	290	406	12,584	652,534

(a) Includes £6,403 in respect of 1939-45 War.

§ 4. Medical Treatment of Returned Soldiers Suffering from War Service Disabilities.

At 30th June, 1944, there were 2,242 in-patients, including a number whose care was undertaken by the Repatriation Commission on behalf of other countries or Commonwealth Departments. There were 167,185 out-patient attendances for treatment during the year, excluding treatments by the 792 Local Medical Officers resident in country towns. The expenditure to 30th June, 1944 was £12,175,969.

§ 5. Miscellaneous.

1. *Summary of Other Departmental Activities.*—The following is a summary of the work of the Repatriation Commission from 8th April, 1918 to 30th June, 1944 :—

(i) *Employment.* Number of applications, 269,724; number of positions filled, 144,101.

(ii) *Vocational Training.* Number of men completed training, 27,766; number in training, 324.

(iii) *Soldiers' Children Education Scheme.* From the inauguration of the scheme in February, 1921, up to 30th June, 1944, 28,721 applications for assistance had been received. Of these, 26,997 had been approved, of which 19,600 recipients of benefits had completed their training and 3,588 were undergoing training, while 82 applications were pending and the remainder had been refused or withdrawn.

Up to 30th June, 1944, the expenditure was £2,505,395

(iv) *Assistance Granted.* The total expenditure incurred, apart from war and service pensions, during the period from 8th April, 1918 to 30th June, 1944, was £26,156,781, of which £1,693,718 represented loan and £24,463,063 general expenditure. Of the total, the largest amounts were absorbed by medical treatment with £12 million, vocational training with £5 million, and expenses of providing employment, £2½ million.

By amending legislation passed during the 1939–45 War, the provisions relating to existing general benefits were applied in respect of soldiers engaged in that war, and new benefits designed for their re-establishment after discharge from the Forces were made available. The new benefits are placement in employment; payment of sustenance while awaiting employment; provision of tools of trade to those for whom such tools are deemed necessary in the exercise of their calling; supplementation of wages of apprentices whose apprenticeships have been interrupted by war service; and provision of free passage to Australia for the wives and children of soldiers who, during the war, have married abroad.

2. *Expenditure of Repatriation Commission.*—The expenditure of the Commission for the year ended 30th June, 1944 was £12,406,401, distributed as follows :—

Repatriation benefits—	£
Loans to soldiers	17,207
Grants to soldiers and general expenditure (including maintenance of training schools, medical institutions, etc.) ..	842,032
Assistance to soldiers in necessitous circumstances	1,953
Allowances to dependants of soldiers not provided for under the Act	1,463
	<hr/> 862,655
Soldiers' Children Education Scheme	101,467
War and Service Pensions(a)	11,004,397
Administrative costs—	£
Salaries	365,520
Contingencies	81,362
	<hr/> 437,882
Total	12,406,401

(a) Includes net payments on behalf of other countries.

3. *Losses on Soldier Settlement.*—Reference to losses incurred in connexion with settlement of returned soldiers and sailors will be found in Chapter IV., "Land Tenure and Settlement."

CHAPTER XI.

THE TERRITORIES OF AUSTRALIA.

GENERAL.

The Territories under the control of Australia are: The Northern Territory; the Australian Capital Territory; Papua (formerly British New Guinea); Norfolk Island; the Territory of New Guinea (by Mandate of the League of Nations); Nauru (under joint Mandate of the Commonwealth, Great Britain and New Zealand); the Territory of Ashmore and Cartier Islands; and the Australian Antarctic Territory.

The Australian Antarctic Territory, estimated area 2,472,000 square miles of a total area of approximately 5,000,000 square miles for the Antarctic Continent, was established by an Order in Council dated 7th February, 1933, which placed under the control of the Commonwealth of Australia that part of the Territory in the Antarctic Seas which comprises all the islands and territories, other than Adelie Land, situated south of the 60th parallel of south latitude and lying between the 160th and 45th meridians of east longitude. The Territory was accepted by the Commonwealth of Australia on 24th August, 1936, when the Antarctic Territory Acceptance Act 1933 came into force by proclamation issued by the Governor-General.

The results of the census of the Territories at 30th June, 1933, may be found in the separate Census bulletins and parts published by this Bureau.

In each of the external Territories Australian currency is used. In the Territory of New Guinea, however, Australian coins are being replaced by local coins consisting of silver shillings, cupro-nickel sixpences and threepences, and bronze pennies.

THE NORTHERN TERRITORY.

§ 1. Area and Population.

1. *Introductory.*—Upon the extension of New South Wales westward to the 129th meridian in 1825, the Northern Territory was incorporated in that colony, but in 1863 was annexed by Royal Letters Patent to the province of South Australia. With the adjacent islands it was transferred to the Commonwealth on 1st January, 1911. The total area is 523,620 square miles, or 335,116,800 acres—about six times as large as Victoria.

2. *Population.*—(i) *Europeans.* At the census taken in 1881 there were only 670 Europeans in the Territory. The number increased slowly, reaching its maximum in 1918 with 3,767 persons. At the census of 1933 the white population had decreased to 3,306. This number, however, was 34.5 per cent. greater than the figure at the census of 1921.

(ii) *Non-Europeans.* The number of full-blood non-Europeans, excluding Australian aboriginals, in the Northern Territory on 30th June, 1933, was 744, of whom 462 were Chinese, the remainder being mainly Filipinos (69), Japanese (91), and Malays (59). There were at one time over 4,000 Chinese in the Territory.

The half caste population recorded at the census of 1933 numbered 800 of whom 743 were half-caste Australian aboriginals.

(iii) *Total Population.* The estimated population at 31st December in each of the years 1939 to 1943 is given in the following table :—

NORTHERN TERRITORY : POPULATION (EXCLUDING ABORIGINALS).

Year.	Males.	Females.	Total.
1939	4,231	1,981	6,212
1940	4,258	2,041	6,299
1941	4,078	1,492	5,570
1942	3,972	980	4,952
1943 (a)	4,042	1,113	5,155

(a) Subject to revision.

The population at the Census of 30th June, 1933, was 3,378 males, 1,472 females, total 4,850.

(iv) *The Aborigines.* A special article contributed by Dr. W. Ramsay-Smith on the subject of the Australian aborigines was incorporated in Official Year Book No. 3 (p. 158). The Chapter "Population", in Official Year Book No. 17, contained information regarding the number and distribution of aborigines and the measures taken by the States (in the case of the Northern Territory, by the Commonwealth) to protect them and to conserve their interests. Large numbers of the aborigines in the Territory are still outside the influence of Europeans. The total number of full-blood and half-caste aborigines at 30th June, 1944, was estimated at 14,153, of whom 3,314 were in regular employment. There are fifteen "aboriginal" reserves, comprising an area of 67,244 square miles. (See also Chapter XIV. "Population".)

§ 2. Legislation and Administration.

On 1st January, 1911, the Territory was transferred by South Australia to the Commonwealth. The terms are outlined in Official Year Book No. 15. p. 940. By the Northern Australia Act 1926, the Territory was divided into two parts, Central Australia and North Australia, separated by the 20th parallel of south latitude, each administered by a Government Resident. In addition, Advisory Councils and a Development Commission were provided for. The Act of 1926 was repealed by the Northern Territory (Administration) Act 1931. The administration of the Territory was placed in the hands of an Administrator, residing at Darwin, assisted by a Deputy Administrator, residing at Stuart (Alice Springs). The designation of the latter office was later changed to that of District Officer. The Governor-General is empowered to make ordinances having the force of law in and in relation to the Territory, subject to disallowance by either House of the Commonwealth Parliament. The Territory elects a member to the House of Representatives, who may take part in debates, but may not vote, except on a motion for the disallowance of any ordinance of the Northern Territory or on any amendment of any such motion.

§ 3. Physiography.

1. *Tropical Nature of the Country.*—The Territory is within the torrid zone, with the exception of a strip $2\frac{1}{2}$ degrees wide which lies south of the Tropic of Capricorn.

2. **Contour and Physical Characteristics.**—The low flat coast-line seldom reaches a height of 100 feet. Sandy beaches and mud flats, thickly fringed with mangroves, prevail. Sandstone, marl and ironstone form the occasional cliffy headlands. The sea frontage of more than 1,000 miles is indented by bays and inlets and intersected by numerous rivers, many of which are navigable for considerable distances from their estuaries.

The principal features of the coast-line are enumerated in Official Year Book No. 1, p. 66; the rivers in No. 2, p. 76; the mountains in No. 3, p. 67; the lakes in No. 4, pp. 77, 78; the islands in No. 5, pp. 71, 72; and the mineral springs in No. 6, p. 65.

Inland, the country generally is destitute of conspicuous landmarks. From the coast there is a general rise southwards to the vicinity of the 17th or 18th parallel of south latitude, where the higher lands form the watershed between the rivers that flow northwards to the sea and those that form the scanty supply of the interior systems. Towards the centre of the continent the land over a wide area is of considerable elevation, and there are several mountain ranges, generally with an east and west trend.

§ 4. Climate, Fauna and Flora.

1. **The Seasons.**—There are two main climatic divisions—the wet season, November to April, and the dry season, May to October, with uniform and regular changes of weather. Nearly the whole of the rainfall occurs in the summer months. Fuller particulars appear in Official Year Book No. 6, p. 1116.

2. **Fauna.**—The ordinary types of native Australian fauna inhabit the Territory. As elsewhere on the continent, the higher *Theria* are rare, but marsupials, birds, crocodiles, fresh-water tortoises, snakes (mostly non-venomous) and frogs abound. There are many varieties of fresh-water fish and littoral mollusca. Butterflies and beetles are strongly represented. The white ant is a pest, anthills in the Territory sometimes attaining great dimensions. Mosquitoes and sandflies are very troublesome, particularly in the wet season. Native fauna are in some cases protected. Buffalo formerly existed in large herds, but their number has been greatly reduced by indiscriminate shooting.

3. **Flora.**—The vegetation is North Australian in type, but a number of the forms belong to the Malayan and Oceanic regions. The timber trees are not of great commercial value, but in the coastal regions tropical vegetation grows luxuriously to the water's edge. On the wide expanses of plain country in the interior there is little vegetation, the principal orders represented being:—*Euphorbiaceae*, *Compositae*, *Convolvulaceae*, *Rubiaceae*, *Goodenoviaceae*, *Leguminosae*, *Urticaceae*.

Fuller particulars regarding fauna and flora are given in Official Year Book No. 6, pp. 1116–7.

§ 5. Production.

1. **Area.**—At 30th June, 1944 (figures at 30th June, 1943, in parenthesis), there were 245,176 (226,731) square miles held under lease, licence and permit in the Northern Territory, comprising 180,400 (178,973) square miles of pastoral leases, 696 (696) square miles of pastoral permits, 61,337 (43,841) square miles of grazing licences, 115 (114) square miles of agricultural leases and 2,628 (3,107) square miles of miscellaneous leases.

2. **Agriculture.**—Up to the present agriculture has made little progress in the Territory, although it has been proved that rice, tobacco, coco-nuts, mangoes, bananas, cotton, various fodder plants, and peanuts can be successfully grown. Expense of harvesting is, at present, an obstacle to the economic production of rice, and until labour-saving machinery is procured it cannot be produced with profit. There is a large stretch of first-class coco-nut land on the coast, but hitherto planting has not been attempted on a commercial scale. For the encouragement of primary production a Primary Producers' Board was established in 1931. There was little activity in agriculture during 1940-41 and the outlook was not hopeful. No information of recent developments is available as the collection of agricultural statistics was temporarily discontinued after 1940-41 owing to the war. It is hardly practicable to develop agricultural production in the sub-tropical district around Darwin, and the history of efforts in this connexion is one of almost complete failure.

3. **Pastoral Industry.**—The pastoral possibilities of certain parts of the Northern Territory were recognized at an early date, and in 1866 stock was brought into the Macdonnell Range country from South Australia. Six years later cattle were moved from Queensland to the northern parts of the Territory, and in 1879 Giles reached the Katherine River with 2,000 head of cattle and 12,000 sheep from South Australia. For various reasons sheep-raising did not succeed. The cattle industry however progressed steadily. The number of cattle exported by land from the Northern Territory during 1944 was about 118,943. In the southern portion of the Territory the rainfall in 1944 was above average and evenly distributed throughout the year, resulting in a season comparing favorably with the record year of 1939. Intermittent rains, sufficient to stimulate the growth of grass, together with top feeds which brought cattle into prime condition, produced excellent results as shown when these cattle repeatedly topped the Adelaide markets, averaging approximately £20 per head for lots of up to 150. In the north, including the Darwin and Gulf Districts, the 1944 season was fair, enabling a fair quality of beef to be provided at the Katherine (N.T.) abattoirs for Army use. The average killing weight in the northern parts was 450 lb. for spayed cows and up to 600 lb. for bullocks.

The estimated number of live stock in the Territory at the end of the years 1939 and 1941 to 1944 is given in the table hereunder :—

NORTHERN TERRITORY : LIVE STOCK.

31st December—	Horses.	Cattle.	Sheep.	Pigs.	Goats.	Camels	Donkeys.	Mules.
1939 ..	32,721	922,581	38,587	483	20,335	331	1,443	366
1941 (a) ..	26,209	892,881	28,245	418	10,819	220	1,123	378
1942 ..	43,603	978,434	34,603	532	14,721	342	1,401	360
1943 ..	30,534	978,569	25,575	191	15,149	302	1,460	416
1944 ..	31,803	984,370	29,269	146	11,384	284	1,167	426

(a) Incomplete.

4. **Mining.**—(i) *General.* Alluvial gold-digging in the Northern Territory commenced in 1869, and up to the end of 1880 gold to the value of £79,022 had been produced. In 1881 gold production from alluvial deposits reached its maximum, the value for that year being £111,945. During the following years it fluctuated considerably, but as long as the alluvial deposits lasted the output was satisfactory. In the transition period from alluvial to reef mining the industry declined considerably. The production of metals other than gold has suffered on account of the vagaries of prices, and the high cost of transport and of white labour. Owing to the exceptionally high price the search

for gold was stimulated and production increased annually from 1931 to 1940, but decreased thereafter owing to lack of manpower occasioned by the war. The Warramunga Goldfield, of which Tennant Creek is the centre, has been the principal producing goldfield and gives every indication of increasing production for a number of years once the difficulty in obtaining labour has been overcome. The necessity for satisfying Australian requirements of mica of strategic quality led to the regional development of the Harts Range mica fields, where roads and water supplies, hitherto unknown in this country, were made and established, and as a result, the mica fields were better exploited in the war years. Production of wolfram concentrates fell from £58,166 in 1943 to £31,583 in 1944. The demand for tantalite for Radar work and non-corrosive surgical equipment resulted in a production valued at £1,043 in 1943, when the Commonwealth Government purchased concentrates for forwarding to the United States of America. The use of ochre for camouflage paints caused an increase in production from the Rumbalara deposits. Tin concentrates were produced from the Finniss River area and the Maranboy Tinfield.

(ii) *Mineral Production.* The following table shows the value of mineral production for the six years ended 1944.

NORTHERN TERRITORY : MINERAL PRODUCTION.

Year.	Gold.	Tin Concentrates.	Ochre.	Copper Ore.	Mica.	Wolfram.	Tantalite.	Total Value all Minerals.
	£	£	£	£	£	£	£	£
1939 ..	163,414	4,487	607	2,248	15,539	58,183	..	244,478
1940 ..	238,849	4,533	1,068	1,072	17,670	47,828	..	311,024
1941 ..	201,599	4,041	876	3,185	12,133	52,326	12	274,172
1942 ..	126,035	6,627	3,416	..	24,554	43,734	..	204,366
1943 ..	40,880	5,594	4,800	2,393	17,919	58,166	1,043	130,795
1944 ..	57,803	2,086	5,090	1,878	26,621	31,583	962	126,025

(a) Excludes bismuth—£4 in 1940 and £2 in 1944.

The value of all minerals produced to the end of 1944 was approximately £5,499,760

In 1934 the Governments of the Commonwealth and the States of Queensland and Western Australia agreed to co-operate in the conduct of a geological and geophysical survey of certain areas in the northern parts of Australia, including the Northern Territory. More detailed reference to the survey and its progress will be found in Chapter XXVI. "Mineral Industry".

5. *Pearl, Bêche-de-Mer, and Other Fisheries.*—In 1884 mother-of-pearl-shell was discovered in the harbour of Port Darwin. Difficulty in working, principally through heavy tides and muddy water, retarded the development of the industry for many years. The production of pearl-shell has declined rapidly since 1937–38. The production for 1939–40 amounted to only 179 tons, valued at £14,350, compared with 804 tons, £67,000, in 1937–38 and 410 tons, £31,500, in 1938–39. Information for later years is not available. The depleted condition of the known beds and the depressed market were responsible for fewer Japanese vessels competing with local vessels during 1939–40.

Three fishing licences and two boat licences were issued during 1938–39 in connexion with bêche-de-mer fisheries. Prices were not remunerative, however, and the production was valued at only £252.

Darwin continues to provide a firm and ready local market for fish. The lack of suitable refrigerating plants on the fishing-boats is responsible for the deficiency of regular supplies of fish except in limited quantities obtained from traps close to the town.

§ 6 Land Tenure.

A description of the system of land tenure in force in the Territory will be found in Chapter V. "Land Tenure and Settlement", Official Year Book No. 22.

§ 7. Commerce, Shipping and Air Services.*

1. **Trade.**—No record is kept of the trade between the States and Territories. The value of the direct oversea imports and exports for 1901 and for the years 1937-38 to 1941-42 is given hereunder :—

NORTHERN TERRITORY : OVERSEA IMPORTS AND EXPORTS.

Items.	1901.	1937-38.	1938-39.	1939-40.	1940-41.	1941-42 (c)
	£	£	£	£	£	£
Imports (a)	37,539	44,703	29,406	61,691	84,694	139,889
Exports (b)	29,191	6,053	12,729	12,814	24,865	13,314

(a) British currency values.

(b) Australian currency values.

(c) July to April.

* Owing to the war the port of Darwin was closed as a Customs station from April, 1942—when Customs officers were withdrawn—till July, 1945 and for this period no details of trade and of shipping movements are available for this port which remained purely military in character and under the control of the Defence authorities.

2. **Shipping.**—The Territory is dependent for its shipping facilities chiefly on the services of vessels trading between the Eastern States and Singapore. In addition to pearlers and other small craft, larger vessels make occasional visits, while a periodic service between Fremantle and Darwin is carried out by vessels belonging to or under charter to the Western Australian State Shipping Service.

NORTHERN TERRITORY : SHIPPING.

Year.	Entered.		Cleared.	
	No. of Vessels.	Net Tonnage.	No. of Vessels.	Net Tonnage.
1937-38	99	122,060	101	122,061
1938-39	161	181,961	172	179,422
1939-40	104	181,743	103	171,991
1940-41	93	213,710	89	209,063
1941-42 (a) ..	81	207,970	82	206,378

(a) July to April only.

The foregoing figures exclude particulars of coastwise shipping. During 1938-39 fourteen vessels of 285 tons net were entered at Darwin as coastwise and two vessels of 66 tons net during 1940-41.

3. **Air Services.**—Prior to the outbreak of war in Europe, Darwin was the first port of arrival in Australia of aircraft from Europe, Singapore and Netherlands East Indies. The air services calling at Darwin were as follows :—Qantas Empire Airways Ltd., under

contract to the Commonwealth Government, which operated the Sydney-Darwin-Singapore section of the Empire Flying Boat Service with a twice weekly service in each direction; the MacRobertson-Miller Aviation Co. Ltd., which operated a twice weekly service in each direction between Perth and Darwin, linking up with the Qantas service at the latter point; Guinea Airways Ltd., which operated a twice weekly service in each direction between Adelaide and Darwin; and the K.N.I.L.M. (Dutch) Company, which extended their Amsterdam-Batavia air route to Sydney via Darwin in 1938, operating a weekly service in each direction which was increased to a twice weekly frequency from 2nd January, 1942. Oversea air services with Darwin were suspended early in 1942 as a result of war with Japan. They were resumed on 7th April, 1946.

§ 8. Internal Communication.

1. **Railways.**—Under the agreement made between the Commonwealth and the State of South Australia for the transfer of the Northern Territory, which was ratified by the Northern Territory Acceptance Act 1910, the Commonwealth was to construct the Northern Territory portion of the transcontinental railway line (connecting Adelaide and Darwin via Port Augusta).

The Northern line from Adelaide terminates at Alice Springs, about 192 miles north of the southern boundary of the Territory. The Commonwealth Government acquired on 1st January, 1911 the property in the line from Port Augusta to Oodnadatta (478 miles), and on 1st January, 1926, the control thereof was transferred to the Commonwealth Railways Commissioner. The line from Darwin to Katherine River, about 200 miles, has been extended as far as Birdum, 316 miles from Darwin. The completion of the remainder of the gap would give access to broad belts of pastoral and mineral country towards the centre of Australia.

The Railway Standardization Agreement Act 1946, provides for the conversion to standard gauge (4 ft. 8½ in.) of the 3 ft. 6 in. gauge lines from Port Augusta to Alice Springs and from Birdum to Darwin, and for the construction of a line of standard gauge from Alice Springs to Birdum.

2. **Posts.**—Postal communication is maintained by vessels which maintain a regular service between the Territory and the Eastern States. In addition, the vessels belonging to the State Steamship Service of Western Australia give a periodic service between Fremantle and Darwin. Mail is carried between the capital cities of Australia and Darwin by the airway companies operating in each State. Inland, the northern part of the Territory receives its mail via Darwin or by means of the aerial services, and the southern districts are served via Adelaide.

3. **Telegraphs.**—The transcontinental telegraph line, covering a length of 2,230 miles, was completed on 22nd August, 1872, at a cost of nearly £500,000. The line runs in a northerly direction from Adelaide to Darwin, whence telegraphic communication is provided with Asia and Europe, via Banjoewangie (Java), Singapore and Madras. Between Darwin and Banjoewangie the submarine cable is duplicated.

Long-distance telephone communication between Darwin and the other capital cities of Australia was established after the outbreak of war in the Pacific.

High-power wireless stations have been constructed by the Commonwealth Government at Wave Hill in the Territory, and at Camooweal, just over the eastern boundary, in Queensland.

§ 9. Finance.

In the Commonwealth finance statement separate accounts are given for Northern Territory administration. Revenue and expenditure for the years 1938-39 and 1940-41 to 1943-44 are given below :—

NORTHERN TERRITORY : REVENUE AND EXPENDITURE.

Particulars.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
REVENUE.					
Taxation—	£	£	£	£	£
Customs and Excise ..	7,916	30,483	12,945	(a)	(a)
Sales Tax ..	757	5,523	7,433	(a)	(a)
Land and Income Tax ..	9,306	67,701	69,142	(b) 314	(b) 23
Probate and Stamp Duties ..	1,486	2,119	1,886	2,724	869
Pay-roll Tax ..	..	..	5,737	(a)	(a)
Medical Benefits Tax ..	..	..	16,406	2,014	111
Railways—					
North Australia ..	50,471	185,808	305,448	791,555	822,582
Central Australia ..	137,521	243,702	742,144	1,584,537	1,736,783
Posts, telegraphs and telephones	21,352	51,072	83,449	130,420	275,352
Territorial ..	27,994	38,187	33,199	36,779	41,205
Miscellaneous ..	36,738	110,706	73,031	69,225	98,481
Total ..	293,541	735,301	1,350,820	2,617,568	2,975,406
EXPENDITURE.					
	£	£	£	£	£
Territory Administration (c) ..	210,929	232,818	233,555	165,756	192,114
Developmental Services ..	69,314	67,213	70,802	11,429	9,435
Postmaster-General's Department (d) ..	25,423	36,827	47,228	50,446	46,740
Other Departments ..	29,712	90,399	46,058	7,367	5,739
Rents, Repairs, Maintenance ..	21,189	26,883	68,092	74,957	25,138
Works ..	243,980	390,514	338,079	94,779	72,853
Interest ..	66,757	64,742	65,578	50,083	49,590
Sinking Fund ..	14,044	15,483	16,257	17,070	17,923
Unemployment Relief ..	5,890	2,857	2,515	1,380	795
Shipping subsidy ..	10,940	8,056	6,500	800	1,000
Miscellaneous ..	2,400	300	..	..	..
Railways—					
Working expenses ..	260,560	348,453	697,498	1,131,425	1,507,240
New Works ..	29,204	13,525	20,597	6,574	19,643
Interest ..	274,537	268,586	268,597	252,034	250,791
Sinking Fund ..	51,066	57,291	60,154	63,073	60,061
Total ..	1,325,845	1,623,941	1,941,789	1,928,073	2,265,071

(a) Not dissected. (b) Territorial tax only. Commonwealth tax not dissected. (c) Salaries, contingencies and miscellaneous. (d) Salaries, contingencies and conveyance of mails.

AUSTRALIAN CAPITAL TERRITORY.

1. **Introductory.**—In Official Year Books Nos. 4 and 5 information was given in Section XXXI. in regard to the events leading to the selection of the Australian Capital Territory and the necessary legislation and the progress of operations in connexion with the establishment of the capital city. The physiography of the Territory was dealt with extensively and topographical and contour maps accompanied the letterpress, as well as reproductions of the award-winning designs for the laying out of the city. On 11th March, 1913, the official ceremony to mark the initiation of operations in connexion with the establishment of the Seat of Government was carried out. At this ceremony the selection of "Canberra" as the name of the capital city was announced. The Seat of Government Acceptance Act 1938 provides that the Territory shall be known as the Australian Capital Territory. (A special article contributed by Dr. F. Watson, entitled "Canberra Past and Present", appears on p. 454 of Official Year Book No. 24).

2. **Transfer of Parliament.**—On 9th May, 1927, Parliament House at Canberra was officially opened by His Royal Highness Albert, Duke of York, our present Monarch His Majesty King George VI., the occasion being the 26th anniversary of the opening of the first Parliament of the Commonwealth at Melbourne by His Royal Highness George, Duke of Cornwall and York—afterwards His Majesty King George V.—on 9th May, 1901. (For particulars of the opening ceremony see Official Year Book No. 21, p. 604).

3. **Administration.**—In Official Year Book No. 18 a summary is given of the development of the administration prior to the taking over of the control of the Territory by the Federal Capital Commission, and in Official Year Book No. 22 a summary is given of the administrative activities of the Federal Capital Commission.

The administration of the Territory by the Federal Capital Commission was continued until 30th April, 1930, when the Seat of Government (Administration) Act 1924-1929 was repealed, and the powers and functions of the Commission reverted to the Government.

Since April, 1932, the general control of the Territory has been exercised by the Minister for the Interior, certain specific services, however, being undertaken by the Department of Health, the Department of Works and Housing, and the Attorney-General's Department.

4. **Progress of Work.**—The general progress of the work of construction up to the time the Territory was taken over by the Commission is outlined in Official Year Book No. 18. Later progress under the Commission is described in Official Year Book No. 22.

During 1943-44 the Canberra Community Hospital and the new abattoirs were completed. The construction of 90 houses was commenced during 1944-45 but only 18 were completed to 30th June, 1945. There were no residences completed during 1943-44.

In previous issues of the Official Year Book a synopsis of the works completed during the year were given, but for reasons of economy has been omitted from this issue.

5. **Forestry.**—A considerable amount of reafforestation work has been undertaken, and plantations have been established at Uriarra, Mount Stromlo, Pierce's Creek, Green Hills and Kowen. Experimental plots have also been established in the Brindabella mountains.

The total area of plantations to 30th June, 1944, was 14,000 acres. Forestry operations were begun on Mount Stromlo in 1915, and up to 1925 approximately 700 acres had been planted with pine and other trees. The plantings up to this time were chiefly on aesthetic lines, but since the initiation of a wider programme, arrangements have been made for pruning and thinning, and sawmill timber is now being obtained from the logs resulting from thinning operations. The yearly output of sawmill logs from thinnings is gradually improving and has increased from 21,762 super. feet in 1930-31 to about 1,520,000 super. feet in 1943-44.

In 1926 a comprehensive review was undertaken of the Territory's potentialities in regard to forest development. A system of forestry management was instituted in the existing forest areas, and a considerable amount of survey and assessment work has been completed. *Pinus radiata* has been most extensively planted, and also, as a result of experimental work, pinus areas of better quality pines on a longer rotation, such as *Pinus ponderosa* and *laricio*, have been planted during recent years, but *Pinus radiata* remains the principal species.

6. Lands.—(i) *In the Australian Capital Territory.* Reference has been made in previous issues of the Official Year Book to the general conditions of land tenure in the Australian Capital Territory and to the area of alienated and leased land.

As considerable portions of the Territory lands are not required in connexion with the establishment of the city, large areas have been leased under special improvement conditions in regard to the extermination of noxious weeds and the destruction of rabbits and other pests. The lands are classified into three grades of agricultural and three grades of grazing land. About 315,634 acres comprising 457 leases and 7 grazing licences were held under lease and licence at 31st March, 1945, for periods varying from quarterly tenure to 25 years.

Auction sales of city leaseholds are described in Official Year Book No. 22, p. 599.

Five leases under the Church Lands Leases Ordinance 1924-1932, which require the lessees to submit a definite building programme within a specified period, and one lease under the Church of England Lands Ordinance 1926 have been granted for church purposes. A further eight leases under the Leases (Special Purposes) Ordinance 1925-1943 and two leases under the Leases Ordinance 1916-1937 have been granted for church and scholastic purposes.

The total number of leases granted under the City Area Leases Ordinance, excluding surrendered leases, at the end of the financial year 1943-44 was 559, representing a capital value of £238,393. During the year 12 new leases were granted. The number of business and residential blocks surrendered to or determined by the Commonwealth to the end of the year was 294.

Under the terms of the City Area Leases Ordinance 1936-1938 each block is leased for a period of 99 years at a rental of £5 per cent. per annum of the unimproved capital value as assessed by the Commonwealth or bid at auction. At present such rentals are subject to a 20 per cent. rebate.

(ii) *In the Jervis Bay Territory.* The Commonwealth acquired from the State of New South Wales sovereign rights over the area comprising about 28 square miles of land and water at Jervis Bay for possible use as a port in connexion with the Australian Capital. The Royal Australian Naval College was established in this area on a site known as Captain's Point, but was removed in 1930 to Flinders Naval Base, Victoria. Leases have been granted over an area of 11,788 acres in the Jervis Bay Territory.

7. Railways, etc.—Canberra is connected at Queanbeyan with the railway system of New South Wales by a line 4½ miles long. This line was opened for goods traffic on 25th May, 1914, and for passenger traffic on 15th October, 1923. The railway terminus is situated in the area known as Kingston.

A direct passenger service is in operation connecting Canberra with Sydney and Melbourne, and trains leave both cities for Canberra daily. Improved facilities for goods traffic have also been provided.

Regular car services operate between Canberra and Albury and Canberra and Sydney. There are also air services operating several times daily on the Melbourne-Canberra-Sydney route.

8. Population.—The census return of population on 30th June, 1938, was 11,290 in the Australian Capital Territory and 272 in the Jervis Bay Territory, or a total of 11,562 persons. The estimated population at 30th June, 1944, was 14,445.

9. *Live Stock*.—The numbers of live stock depastured at 31st March, 1945 (at 31st March, 1944, in parentheses) were—Horses, 1,091 (1,151), cattle, 9,320 (8,083), sheep, 250,778 (274,642), and pigs 689 (657).

10. *Educational Facilities*.—Arrangements have been made with the New South Wales Education Department to continue the administration of education in the Territory, the expenditure involved being refunded annually to the State. There are nine schools in the Australian Capital Territory and two in the Jervis Bay Territory. The largest school is situated at Telopea Park, Barton, with accommodation for 750 scholars. Secondary education is provided at the Canberra High School, Acton. It has accommodation for 550 scholars, and its curriculum provides a standard of education comparable in range of subjects with that provided at the Government High Schools in New South Wales. The School also provides for Commercial and Junior Technical Classes, and there is an Evening Continuation School attached, with Evening Commercial and Matriculation Classes. To meet the increased demand for Secondary education, a Secondary Department has been established at the Telopea Park Central School.

The Canberra Technical College at Kingston is provided with modern equipment for supplementary courses for apprentices, journeymen desirous of improving their trade qualifications, and for others who desire to take any special courses.

The Canberra Nursery School, Acton, established in 1944, provides for the training of children between the ages of 3 and 5 years.

There are at present four private schools in the Territory. The Canberra Grammar School, the Canberra Church of England Girls' Grammar School, and St. Christopher's Convent School provide for primary and secondary education, and St. Patrick's School provides primary and sub-primary education.

Reference to the establishment of the Canberra University College will be found in Chapter VI. "Education".

11. *Finance*.—(i) *Financial Year 1943-44*. Receipts and Expenditure for the financial year 1943-44 are given in the following table:—

AUSTRALIAN CAPITAL TERRITORY : RECEIPTS AND EXPENDITURE, 1943-44.

Receipts.		Expenditure.				
Items.	Amount.	Items.	New Works, etc.	Main-tenance.	Other.	Total.
	£		£	£	£	£
Rent and rates ..	219,136	Architectural services ..	38,877	26,827	..	65,704
Electricity ..	77,513	Engineering services ..	90,122	102,078	..	192,200
Motor registration and fees ..	11,256	Land, Forestry ..	10,060	..	16,626	26,686
Water charges ..	11,085	Loans for housing, net	Cr.6,262	..	..	Cr.6,262
Interest ..	14,771	Sundry works and services ..	954	33,572	1,317	35,843
Hotels ..	38,070	Plant, etc.—Works ..	1,980	..	..	1,980
Transport and City Bus Service ..	163,867	Plant, etc.—Transport	26,640	..	..	26,640
Sales of goods, manu- factured products, etc. ..	294,556	Education ..	..	..	49,657	49,657
Housing ..	10,542	Hospital—Working expenses ..	..	..	30,200	30,200
Miscellaneous ..	46,843	Interest and Sinking Fund ..	..	..	285,819	285,819
		Administrative ..	..	..	95,314	95,314
		Hotels—Working expenses ..	..	..	41,274	41,274
		Transport and City Bus Service—Working expenses ..	..	..	149,128	149,128
		Factory Stores, etc.—Working expenses ..	..	..	279,729	279,729
		Housing ..	..	..	11,291	11,291
		Miscellaneous—Police, Fire Brigade, etc. ..	..	..	58,198	58,198
Total Receipts ..	887,039	Total Expenditure ..	162,371	162,477	1,018,553	1,343,401

Similar information for the year 1942-43 will be found in the *Finance Bulletin*, No. 34, p. 18.

(ii) *From 1901-2 to 30th June, 1944.*—The total receipts and expenditure from 1901-2 to 30th June, 1944, were as follows :—

AUSTRALIAN CAPITAL TERRITORY: RECEIPTS AND EXPENDITURE TO 30th JUNE, 1944.

Receipts.		£	Expenditure.		£
Commonwealth Treasury—			Lands		908,935
Parliamentary Appropriations—			Engineering works		5,100,474
Revenue		8,626,651	Architectural works		4,716,641
Loan		5,792,200	Other capital expenditure, sundry		
			debtors, etc.		1,391,639
					12,117,689
			Seat of Government Establishment		
			Account, being maintenance and		
			administration less revenue: ex-		
			penditure of a capital nature for		
			which assets no longer exist;		
			profit and loss accounts of trading		
			activities, etc.		2,301,162*
Total Receipts		14,418,851	Net Expenditure		14,418,851

* Excludes interest £4,156,725 net.

The foregoing table was prepared by the Department of the Interior and excludes part cost of National Buildings—Parliament House, the Secretariats, etc., Federal Highways within the Territory, Queanbeyan-Canberra Railway, and Housing Loan, etc., and Loans for Housing—£2,289,695.

NORFOLK ISLAND.

1. *Area, Location, etc.*—Norfolk Island, discovered by Captain Cook in 1774, is situated in latitude 29° 3' 45" South, longitude 167° 56' 29" East. Its total area is 8,528 acres, the island being about 5 miles long and 3 miles wide. From Sydney it is distant 130 miles, and from Auckland, 630 miles. The length of the coast line is 20 miles, and its form that of an irregular ellipse. Except on the south-west, inaccessible cliffs rise from the water's edge. The climate is equable, the temperature ranging between 49° and 85° F. with a mean of 68° F. The average annual rainfall is 52 inches. It has been said that the salubrious climate, coupled with the beauty of its land and sea scapes, should render Norfolk Island "the Madeira of the Pacific". Until the war the island was visited annually by a number of tourists, and, with the return of improved shipping facilities, this traffic is likely to return on an increased scale. A tourist bureau has been established on the Island.

2. *Settlement.*—The first colonization, in 1788, was by Lieutenant King, who in H.M.S. *Supply* established a small penal station as a branch settlement of that at Port Jackson. The settlement was abandoned in 1813, and for 13 years thereafter its chief use was as a whaling station and place of call for British warships.

From 1826 to 1855 it was again made a penal station. In 1844 it was annexed to Van Diemen's Land (Tasmania).

The descendants of the *Bounty* mutineers, having become too numerous to subsist on Pitcairn Island, were removed thence to Norfolk Island in 1856. The new community numbering 94 males and 100 females were the descendants of British sailors and Tahitian women. The last of those transferred died at Norfolk Island on 1st March, 1943.

3. **Administration.**—In 1856 the island was created a distinct and separate settlement under the jurisdiction of New South Wales. In 1896 it was made a dependency under the Governor of that Colony, and finally by the passage of the Norfolk Island Act 1913 it was accepted by the Federal Parliament as a territory of Australia. From July, 1914 until 1st January, 1929, Norfolk Island was administered by the Department of Home and Territories, and then, until 25th June, 1941, by the Territories Branch of the Prime Minister's Department, but is now administered by the Department of External Territories through an Administrator. An amending measure, the Norfolk Island Act 1935, provided for the establishment of an Advisory Council of eight elected members to advise the Administrator.

4. **Population.**—The population at 30th June, 1944, was 733, consisting of 385 males and 348 females. During 1943-44, 12 births, 9 deaths, and 1 marriage were recorded. The average age of the persons who died was 66 years. Departures from the island exceeded arrivals by 40, the respective figures being departures 157, arrivals, 117.

5. **Live Stock.**—The latest returns of live stock show that at 30th June, 1944, there were on the island 1,858 cattle, 572 horses, 343 sheep and 51 pigs. In addition, there were 6,768 head of poultry.

6. **Production, Trade, etc.**—The soil throughout is good and is specially suitable for the cultivation of bananas, citrus and other fruits. The Canadian Wonder bean seed is one of the staple crops of the island. Since the promulgation of the Ordinance regulating the export of seed the area planted with bean seed has increased. The 1939-40 crop was particularly good, the quantity exported amounting to 1,947 bushels, but, owing to a shortage of local labour due to war conditions, only 288 bushels of seed were grown and exported during the 1943-44 season.

Apart from the bean, agriculture generally has been depressed. A modern pulping factory was erected on the island during 1938 and whilst 82 tons of passion fruit pulp were produced during 1939-40, the quantity of pulp produced during 1943-44 amounted only to 14½ tons. The pulping of cherry guavas for jelly has also been experimented with and investigations are being carried out with a view to cultivating flax and ramie.

The citrus trees on the island in full bearing are capable of producing over 3,000 cases of fruit, but owing to previous drought conditions trees have not resumed normal bearing and no fruit was exported during 1943-44, the season's crop being absorbed locally.

A demonstration farm was established in 1938 for the study of crop diseases and suitable farming methods for the island.

Large numbers of whales pass the island throughout the season. However, whaling had not been conducted for a number of years until 1939, when the industry was revived by the formation of a whaling company. Three boats have been fitted out and manned by full crews. The preserved fish industry which was established some years ago has been abandoned, and the fish-freezing factory has also ceased operations. Such fish as trevally, kingfish, schnapper and many others abound in the waters around the island.

On 30th June, 1944, the total area of land held under freehold and Crown leasehold amounted to 6,667 acres, consisting of 4,518 acres freehold and 2,149 leasehold.

Imports and exports for the last six years are given hereunder; the values are expressed in Australian currency :—

NORFOLK ISLAND : IMPORTS AND EXPORTS.

Country.	1938-39.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.
IMPORTS.						
From—	£	£	£	£	£	£
Australia ..	27,427	26,056	26,030	20,102	20,250	23,412
Pacific Islands	163	194	56	30	..	62
Total ..	27,590	26,250	26,086	20,132	20,256	23,474

EXPORTS.						
To—	£	£	£	£	£	£
Australia ..	16,110	14,240	10,683	7,374	3,866	4,006
New Zealand	623	541	..	..	..	..
Pacific Islands	237	92	71	30	..	41
Total ..	16,970	14,873	10,754	7,404	3,866	4,047

Duties of Customs are levied on the following goods imported into Norfolk Island for home consumption :—

IMPORT DUTIES SCHEDULE.

Article.	Unit.	Rate of Duty.	Article.	Unit.	Rate of Duty.
		s. d.			s. d.
Spirits	pr. gal.	30 0	Chicory	lb.	0 3
Ale, beer, porter and cider	gal.	2 6	Petroleum, etc. ..	gal.	0 3
Wine, still—			Kerosene, etc. ..	..	0 3
Australian .. ..	..	5 0	Residual oil, etc. ..	..	0 3
Other .. ..	..	10 0	Oil, n.e.i. .. ..	..	0 3
Wine, sparkling—			Lubricating oils ..	..	0 3
Australian .. ..	..	15 0	Sugar	cwt.	3 0
Other .. ..	..	25 0	Molasses, etc. ..	..	2 0
Tobacco, manufactured or unmanufactured—			Biscuits	lb.	0 1
Australian leaf ..	lb.	2 0	Candles .. ..	..	0 1
Other leaf .. ..	..	4 0	Confectionery ..	..	0 3
Cigars and cigarettes ..	..	6 0	Dried fruits—		
Tea .. ..	..	0 3	Australian .. ..	..	0 1
Coffee .. ..	..	0 3	Other .. ..	..	0 3
			Jams, jellies and pre- serves .. ..	..	0 1

No duties are chargeable on goods imported into Australia from Norfolk Island if the goods are (a) the produce or manufacture of Norfolk Island; (b) shipped direct to Australia; and (c) not goods which if manufactured or produced in Australia would be subject to excise duty.

7. **Communication.**—The “all-red” cable from Great Britain via Vancouver, Fanning Island and Fiji bifurcates at Norfolk Island, one line connecting with New Zealand, the other with Brisbane.

Under normal conditions a shipping service to the Territory is maintained by vessels of Burns Philp & Co. Ltd. Sydney, under the terms of the contract with the Commonwealth Government for the maintenance of shipping services to the Pacific Islands.

The journey from Sydney to Norfolk Island occupies four days.

8. **Social Condition.**—Education is free and compulsory up to the age of fifteen years. The school conforms to the Australian standard of public education, ranging from kindergarten to the intermediate certificate, with a two years' super-primary course of instruction in cultural subjects and in agriculture, woodwork, metalwork, etc. The headmaster and one assistant teacher are lent by the New South Wales Education Department, but they are paid by the Norfolk Island Administration. The number of scholars enrolled at 30th June, 1944, was 115.

The Court of Norfolk Island presided over by a Chief Magistrate is a court of record with dual jurisdiction. Sitting in its Limited Jurisdiction the Court has power to hear and determine actions of claims not exceeding £30 and to punish summarily all crimes and offences involving a pecuniary penalty or a sentence of imprisonment not exceeding six months. In its Full Jurisdiction the Court can hear and determine all actions, punish all crimes and offences, grant probate and letters of administration, hear and determine appeals from any conviction of the Court sitting in its Limited Jurisdiction, and has authority in all other matters. An appeal lies to the High Court of Australia from any judgment, order, decree or sentence of the Court sitting in its Full Jurisdiction.

9. **Finances.**—The whole of the Territorial revenue together with an annual grant from the Commonwealth Government in aid of the administrative expenses is paid to the credit of the Norfolk Island Trust Fund Account, and all administrative and developmental expenses are paid from that account. The operations for 1943-44 were as follows:—

NORFOLK ISLAND TRUST FUND ACCOUNT, 1943-44.

Items.	Receipts.	Items.	Expenditure.
	£		£
Balance brought forward ..	8,679	Salaries	5,688
Commonwealth Grant ..	4,000	Purchase of liquor ..	5,342
Customs duties	3,445	Demonstration farm ..	219
Sale of liquor	6,794	Repairs and maintenance ..	596
Miscellaneous	2,438	Miscellaneous	3,552
		Balance	9,959
Total	25,356	Total	25,356

PAPUA.*

§ 1. General Description.

1. **Early Administration.**—Particulars of the early administration of Papua are given in Official Year Book No. 19, p. 576.

2. **Administration by Commonwealth of Australia.**—The Territory was placed under the authority of the Commonwealth on 1st September, 1906, by proclamation issued in pursuance of Letters Patent of 18th March, 1902, and was accepted by the Commonwealth by the Papua Act 1905, which came into force by virtue of the

* Civil Administration in the Territory of Papua was suspended on 11th February, 1942, and military control commenced on 12th February, 1942. Civil administration was resumed on 30th October, 1945 (see Papua-New Guinea Provisional Administration, p. 289). During the period of military control matters relating to the former Civil Administration were dealt with by the Department of External Territories, Canberra. The Minister for External Territories was empowered by National Security Regulations to exercise the powers and functions of the Administrator, officers and authorities of the Territory, and jurisdiction of the Supreme Court of Papua was vested in the Supreme Court of the Australian Capital Territory.

aforesaid proclamation. The transfer was made under the authority of Section 122 of the Constitution. The Territory is now under the control of the Commonwealth, but not included within it, and is divided into magisterial districts.

Prior to an amendment made in 1940, the Papua Act provided for the appointment of a Lieutenant-Governor to administer the Territory. The office of Lieutenant-Governor was held by Sir Hubert Murray, K.C.M.G., from 1909 until his death in February, 1940. By virtue of the amendment referred to, the Territory is now controlled by an Administrator.

Pursuant to the provisions of the Papua-New Guinea Provisional Administration Act 1945 (No. 20 of 1945) a single Provisional Administrative Service was formed to take over from the military authorities in the whole of the Territory of Papua and in that portion of the Territory of New Guinea which lies south of the Markham River. Civil control was later extended to other areas in the Territory of New Guinea as circumstances permitted. Colonel J. K. Murray was appointed Administrator on 11th October, 1945, and the transfer from military to civil control was effected on 30th October, 1945.

3. *Area, etc.*—Papua lies wholly within the tropics. The northernmost point touches 5° S. latitude: its southernmost portion, comprising Sudest and Rossel Islands, lies between 11° S. and 12° S. latitude. It is separated from Australia by Torres Strait. The length of Papua from east to west is upwards of 800 miles: towards either end the breadth from north to south is about 200 miles, but about the centre it is considerably narrower. The Territory comprises also the islands of the Trobriand, Woodlark, D'Entrecasteaux and Louisiade groups. The length of coast-line is estimated at 3,664 miles—1,728 on the mainland, and 1,936 on the islands. The total area is about 90,540 square miles, of which 87,786 are on the mainland, and 2,754 on the islands. A reference to the physical characteristics of the Territory appears in previous issues of the Official Year Book (see No. 18, p. 633).

§ 2. Population.

The white population of Papua at the census of 30th June, 1941, was 3,070, made up of 2,409 males and 661 females. The numbers recorded in previous years were:—1937, 1,323; 1938, 1,488; 1939, 1,608; and 1940, 1,822.

It is not possible to give exact data regarding the number of natives, because a large area of the interior has not as yet been under complete Government control. The official estimate is 300,000. Such censuses of the native population as have been taken during recent years point to a slight increase. The coloured population, other than Papuans, on 30th June, 1933, was 786, and included many mission teachers from Samoa, Fiji and other Pacific Islands. On the same date, half-castes, with one of the parents a European, were 227. An Immigration Restriction Ordinance prohibits the immigration of persons who fail to pass the dictation test, or who are of bad character, or likely to become a charge upon the public. Exemptions may, however, be granted by the Administrator to persons of special skill required for employment as overseers or foremen.

§ 3. Native Labour, Taxation, Health, etc.

1. *Native Labour.*—Information regarding the conditions connected with the employment of native labour will be found in Official Year Book No. 22, p. 607.

The number of natives who served under contracts of service for various periods during 1940–41 was 17,168 and the estimated number of non-indentured labourers was 2,900.

2. *Native Taxes.*—Under the Native Taxes Ordinance, 1917–1936, a tax not exceeding £1 per annum may be imposed on natives, except native constables, mission teachers, natives unfit for work, and those who have four living children. The proceeds of the tax must be expended on native education, or devoted to purposes directly benefiting the natives.

The taxes collected in 1940–41 amounted to £16,761, of which £5,904 was transferred to the Native Education Fund, and £8,474 to the Native Benefits Fund. The Native Education Fund during 1940–41 disbursed to primary and technical education £4,036,

and to agricultural education £1,262, leaving a credit balance of £26,200. From the Benefits Fund the expenditure included :—Anthropology, £838 ; health, £6,309 ; village improvements, £94 ; family bonus, £1,720 ; games in villages, £12 ; and clerical expenses, £25.

3. **Care of Half-caste Children.**—An Ordinance was passed in 1922 to provide for the care and maintenance of neglected half-caste children. The Ordinance provides that a sum of £26 per annum shall be paid to the Commissioner for Native Affairs by the adjudged father of the child until the child, if a boy, shall reach the age of 16 years, or, if a girl, 18 years.

4. **Health.**—The two principal native hospitals are in Port Moresby and Samarai ; but minor hospitals are attached to the out-stations. Hospitals are also conducted by the various mission societies and plantation companies. The mission societies employ two doctors and a number of trained nurses. Several European medical assistants are employed by the Government. Prior to the Japanese invasion parties of natives received a six months course of instruction in first aid and in elementary physics, chemistry, anatomy, physiology and pathology at the School of Public Health and Tropical Medicine, University of Sydney. On their return, the natives were employed as travelling native medical assistants. A training school has been established for this purpose. The chief complaints treated are yaws, ulcers, lung affections, hookworm, venereal and skin diseases. The death rate amongst native labourers was 2.7 per cent. in 1940-41.

§ 4. Land Tenure.

1. **Method of Obtaining Land.**—The broad principles upon which the land laws of Papua are based are (a) no land can be alienated in fee simple ; (b) the rental of the land leased is assessed on the unimproved value of the land, and is subject to re-appraisal at fixed periods. The terms upon which land may be leased are very liberal. Leaseholds of the best class of agricultural land may be obtained for 99 years. No rent is payable during the first ten years of the lease on areas less than 1,000 acres. During the following ten years the rent is charged at the rate of 5 per cent. on the unimproved value of the land. The unimproved value of the land is appraised every twenty years and the rent determined accordingly. If on any appraisement the rent is raised by more than one-third the lessee may disclaim the lease and shall be entitled to receive compensation for his improvements. The unimproved value of agricultural land has been fixed at 5s. per acre. Rent is immediately payable on areas exceeding 1,000 acres, and survey fees on areas exceeding 100 acres.

2. **Crown Lands.**—Private sales of land in the Territory have now ceased. The Government buys from the natives, and then leases to planters, who are forbidden to have direct dealings in land with Papuans. The amount of Crown Land purchased from the natives in 1940-41 was 12,177 acres, and the total to 30th June, 1941, 1,787,783 acres. The tenures under which surveyed areas were held at 30th June, 1941, were leasehold 200,303 acres, and freehold 23,490 acres. The area of leases granted during 1940-41 for agricultural purposes was 9,834 acres most of which was intended for rubber plantations. The low price of copra and the more favorable prospects of rubber have diverted attention to the latter culture. At 31st December, 1941, more than 80,000 acres were held under leases for the cultivation of rubber. Crown rents on leaseholds for 1941 amounted to £7,317.

§ 5. Production.

1. **General.**—The products of the Territory are obtained from its agricultural, timber, fishing, mining and manufacturing industries. Gold is the principal mineral mined, and rubber and copra are the most important amongst plantation products. Portions of the Territory appear well suited for cotton cultivation, and there is a possibility of obtaining petroleum in marketable quantities. Bounties are paid by the Commonwealth Government on cocoa beans and shells, hemp and coir, sago, vanilla beans, bamboos and rattans, and spices and kapok, produced in the Territory and exported direct to Australia for home consumption.

2. **Agriculture.**—(i) *Soil and Rainfall.* Rich soils at varying elevations and heavy and evenly distributed rainfall favour the cultivation of a variety of tropical products including sugar-cane, coco-nuts, sago palm, bread fruit, dyewoods, spices, ginger, nutmegs, bananas and other fruits. There are large areas of rich alluvial and volcanic soils along the coast, and fertile land is found at elevations up to 6,000 feet. Heavy rainfalls occur, except over a belt of country which runs back from the coast to the hills, and which has its dry season from May to November. This "dry" area is admirably suited for the production of tobacco, fibres, cotton, etc. There are 21 meteorological stations throughout the Territory, and an economic museum and agricultural library have been established.

(ii) *Plantations.* Agricultural settlement has been mostly in the Central and Eastern Divisions with coco-nuts and rubber as the principal crops. The natives are compelled by an Ordinance to plant coco-nuts for food supply. In addition to the coco-nuts in these plantations, many more are planted over small and widely scattered areas by the older natives in accordance with custom. The Native Plantations Ordinance provides for the establishment of plantations in which half of the proceeds is paid to the natives entitled thereto, and the remaining half paid into the Native Education Fund. The following table shows the areas under the different crops during the five years 1936 to 1940:—

AREA UNDER CULTIVATION.

Crop.	1936.	1937.	1938.	1939.	1940.
	Acrea.	Acrea.	Acrea.	Acrea.	Acrea.
Coco-nuts	48,188	45,297	44,719	44,527	44,583
Rubber	10,270	10,956	12,809	14,494	18,262
Sisal hemp	150	150	700	700	..
Kapok	168	119	84	92	85
Coffee	368	271	248	190	84
Other	801	933	664	554	595
Total	59,945	57,636	59,224	60,557	63,609

At 30th June, 1940, the London market price for hot-air dried copra was £13 5s. per ton as compared with £11 7s. 6d. at 30th June, 1939. Rubber at the later date was 13½d. per lb. compared with 8d. per lb. on 30th June, 1939.

(iii) *Government Plantations.* There are two Government plantations, the Orangerie Bay coco-nut plantation and the Kemp Welch rubber plantation, of which the former, having ceased production during 1940-41 owing to the collapse of the copra market, sustained a loss, while the latter reported a net profit on the year's undertakings.

3. **Forestry.**—The principal softwood timber is known as "ilimo," while among satisfactory timbers of the lowlands are "nara," "medobi," and "melila." There are a large number of woods, varying from the softest to the hardest, including beautiful cabinet woods, but research is necessary to determine their usefulness. The development of a coniferous belt at the higher altitudes offers great possibilities. It is believed that teak and sandalwood are well suited for cultivation.

4. **Live Stock.**—At 31st December, 1940, the live stock in the Territory consisted of 587 horses, 5,994 head of cattle, 87 mules, 1,244 goats, 665 pigs, 30 sheep and 6,320 fowls. The introduction of rabbits, foxes, hares and monkeys is prohibited.

5. **Fisheries.**—Pearl-shell fishing occupies an important place in the industries of Papua. In 1941 considerable numbers of luggers were licensed, but the returns were mostly credited to Queensland, whose boundary approaches to within a few miles of the Papuan coast. The species of tortoise which supplies the commercial tortoise-shell is also a native of Papua. Bêche-de-mer and trochus are found along the shores and reefs and form valuable articles of export.

6. *Mining.*—(i) *Variety of Minerals.* Minerals have been found over a wide range of country. Those discovered so far are gold, copper, tin, lead, zinc, cinnabar, iron, osmiridium, gypsum, manganese, sulphur, graphite, chromite, lignite, platinum and petroleum.

The existence of petroleum has been traced at scattered intervals over a large area. Three companies hold permits under the provisions of the Petroleum (Prospecting and Mining) Ordinance 1938-1939 and oil prospecting has been carried on in the Western, Delta, Gulf and Central Divisions

Of precious stones, only the topaz and beryl have been obtained. Large beds of apparently good coal also exist.

(ii) *Gold.* Gold was discovered in 1888 and the search gradually spread over every division, finds being reported wherever the explorers went. The estimated quantity in fine ounces and the value of the gold yield for the five years 1936-37 to 1940-41 are given below:—

PAPUA : GOLD YIELD.(a)

1936-37.		1937-38.		1938-39.		1939-40.		1940-41.(b)	
Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Fine oz.	£	Fine oz.	£	Fine oz.	£	Fine oz.	£	Fine oz.	£
21,605	187,975	25,835	223,160	35,808	325,116	30,422	316,203	10,348	110,501

(a) Valued at average price realized for fine gold in Australia. 1941.

(b) Nine months ended March

Most of the rivers, except those flowing into the Gulf of Papua, have been declared open to gold dredging, and good yields have been obtained. The total value of gold won to 31st March, 1941, was £3,269,021.

(iii) *Copper.* Copper matte to the value of £5,999 was exported during 1940-41. The principal value of this item is its gold content.

(iv) *Other Minerals.* Some good samples of galena (sulphide of lead) have been obtained, while cinnabar (sulphide of mercury), graphite (or plumbago), zinc-blende, native sulphur, and other minerals are known to exist. In 1924 a deposit of lignite was discovered on Smoky Creek, a tributary of the Era River.

A mineral laboratory and museum have been fitted up, and are available to prospectors and others interested.

7. *Water Power.*—Most of the rivers in Papua carry a large volume of water from a great height over a relatively short distance, thereby offering opportunities for the installation of hydro-electric power plants. It is estimated that there is at least 10,000,000 h.p. available for this purpose.

§ 6. Trade and Shipping.

1. *Customs Tariff.*—In the Schedule to the Customs Tariff of Papua 136 items are mentioned, of which approximately one-third is on the free list, consisting of a number of foodstuffs and certain manufactures for use in the development of the Territory or its industries. Where duties are imposed they are generally on a 10 per cent. ad valorem basis, with the exception of ale, spirits, beverages and tobacco on which high revenue rates are imposed. Preference is given to Australian wines. On 16th July, 1931, a primage duty of 4 per cent ad valorem was imposed on all goods, whether dutiable or not, in addition to the ordinary customs dues; the rate was subsequently reduced to 2½ per cent, and the duty ceased to operate on 1st July, 1937. From 12th July, 1940, the duty has been re-imposed, but certain specified articles have been exempted. The value of imports into Papua during 1940-41 was £539,152 and the duty collected, £63,116. The duty collected in 1939-40 was £64,611.

In 1940-41, £4,255 was received in export duties which are levied on pearl-shell, gold and copra, in the latter case only on the excess above £20 per ton of a certain declared value deemed to be the London market price.

Provision is made in the Australian Customs Tariff (Papua and New Guinea Preference) 1936 for the free entry into Australia of certain goods produced and imported direct from Papua (see Chapter XII. "Trade"), and a proclamation of 25th September, 1935, exempted from primage duty goods produced or manufactured in the Territory.

2. **Imports and Exports.**—Tables of imports and exports during the years 1936-37 to 1940-41 are given below. The values of exports are expressed in Australian currency but it is not possible to determine accurately the currency of the £ in the table of imports.

PAPUA : IMPORTS AND EXPORTS.

Particulars.	1936-37.	1937-38.	1938-39	1939-40.	1940-41.
IMPORTS.					
	£	£	£	£	£
Ale, spirits and beverages ..	11,362	14,453	14,818	19,544	24,922
Tobacco and manufactures ..	25,637	24,213	27,466	31,669	31,874
Agricultural products and groceries	114,621	143,937	138,551	156,560	160,345
Textiles, felts, furs, attire, etc. ..	40,987	45,492	37,712	55,388	46,883
Metals and machinery ..	98,875	124,277	76,068	306,937	80,294
Oils, paints and varnishes ..	27,519	37,139	33,331	44,141	37,437
Earthenware, cement, glass, etc. ..	5,078	6,969	5,585	7,069	7,939
Drugs and chemicals ..	9,596	12,904	12,828	17,630	16,904
Wood, wicker and cane ..	7,620	14,918	13,076	8,400	9,039
Jewellery and fancy goods ..	9,171	9,495	7,756	8,075	7,443
Leather and rubber ..	6,288	6,748	8,176	11,154	8,996
Paper and stationery ..	6,317	8,569	8,521	8,218	8,237
Miscellaneous ..	58,633	126,479	94,273	79,128	53,516
Government stores ..	30,352	55,904	36,747	72,499	45,323
Total ..	452,056	631,497	514,808	826,412	539,152
EXPORTS.					
	£	£	£	£	£
Bêche-de-mer ..	3,939	1,363	2,506	1,024	1,202
Coco-nut, desiccated ..	47,137	52,028	48,140	58,015	59,523
Coffee beans ..	7,536	6,906	6,911	5,289	5,754
Copra ..	191,808	91,166	57,999	45,568	59,062
Gold ..	91,775	109,738	152,103	139,621	133,341
Pearls ..	1,966	2,400	15	..	6,000
Rubber ..	124,174	129,448	114,949	152,487	172,099
Trochus shell ..	12,581	8,578	9,200	9,312	1,680
Other ..	43,085	33,666	98,335	99,356	54,114
Total ..	524,001	435,593	490,158	510,672	492,775

The trade of the Territory reached its maximum in 1939-40, exceeding by £180,414 the previous highest figure which was established in 1925-26 when imports were valued at £470,774 and exports at £685,896. Prices for both copra and rubber were high about that time and the copper-mines were producing freely.

3. **Direction of Trade.**—Particulars of the countries of origin of the imports into Papua and of destination of the goods shipped therefrom are shown below for the three years ended 1940-41.

PAPUA : DIRECTION OF TRADE.

Country.	Imports			Exports.		
	1938-39.	1939-40.	1940-41.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£	£
Australia	239,105	319,431	298,848	4,940.8	456,120	453,504
United Kingdom ..	56,699	88,354	51,732	25,840	12,454	10,704
Other British	45,313	28,505	49,454	17,630	8,359	8,453
Europe	23,966	14,864	5,414	11,021	11,118	..
Japan	14,858	18,937	24,821	7,582	4,237	7,718
Asia, excluding Japan	38,960	42,563	15,414	2,425	252	1,279
Dutch East Indies and Philippine Islands ..	21,288	24,188	29,278	11,519	10,948	4,744
U.S. of America ..	73,446	288,224	64,137	576	5,077	313
America, Other	1,173	1,346	54	..	2,107	..
Morocco .. ..	..	..	..	4,154	..	..
Total	514,808	826,412	539,152	490,158	510,672	492,775

4. **Shipping.**—The following table shows the number and tonnage of oversea vessels entered and cleared at ports during the five years ended 1940-41. Of the vessels recorded in 1940-41, 166 were of British nationality.

PAPUA : OVERSEA SHIPPING.

Year.	Vessels.	Tonnage.
1936-37	181	356,476
1937-38	243	482,981
1938-39	215	461,199
1939-40	227	489,970
1940-41	217	489,469

NOTE.—The figures above exclude ships of war and Government vessels.

§ 7. Finance.

The revenue and expenditure for the five years 1936-37 to 1940-41 were as follows:—

PAPUA : REVENUE AND EXPENDITURE.

Particulars.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
Revenue—					
Customs	57,443	58,539	54,606	64,874	77,359
Commonwealth Grant ..	42,500	42,500	42,500	42,500	42,500
Lands	6,530	6,709	6,013	7,112	7,700
Fees, fines, etc.	6,148	7,065	9,501	9,554	10,050
Other	(a) 50,170	67,095	53,203	53,878	51,909
Total	171,791	182,808	165,823	177,918	189,518
Expenditure—					
Medical	16,718	20,884	22,075	20,785	24,718
Ordinary Votes	(b) 127,926	122,536	116,275	127,455	132,633
Public Works	23,503	35,828	25,458	26,966	29,886
Native Affairs	2,773	3,854	4,522	2,726	1,763
Total	170,920	183,102	166,330	177,932	189,000

(a) Includes Commonwealth grant to rubber growers of £6,871.
of Commonwealth special grant.

(b) Includes expenditure

§ 8. Progress of Papua.

The following table indicates the progress made from 1st September, 1906, when the Territory was placed under Australian control, to 30th June, 1941 :—

PAPUA : STATISTICAL SUMMARY.

Items.	Year ended 30th June—			
	1907.	1930.	1940.	1941.
White population	No. 690 ^a	1,608	1,812	3,070
Native labourers employed	" 2,000	10,733	20,352	20,068
Territorial revenue	£ 21,813	123,323	135,418	147,918
" expenditure	£ 45,335	106,331	177,032	189,000
Value of imports	£ 87,776	514,808	826,412	539,152
" exports	£ 63,756	400,158	510,672	492,775
Area of plantations	acres 1,467	59,224	60,557	63,609
Meteorological stations established	No. 3	21	21	21
Gold yield	fine oz. 12,139	35,808	30,422	(a) 10,348

(a) Nine months ended March, 1941.

MANDATED TERRITORY OF NEW GUINEA.*

§ 1. General Description.

The land area of the Territory of New Guinea is about 93,000 square miles and the area including the sea within the lines drawn through its extreme outer points is more than 1,000,000 square miles. As the coast of the Territory has not been completely surveyed, the areas of the various islands are known only approximately.

The approximate areas of the principal islands together with the small islands adjacent thereto are as follows :—

AREA OF TERRITORY OF NEW GUINEA.

Particulars.	Approximate Area.
	Sq. Miles.
North East New Guinea (also called "The Mainland") ..	69,700
Bismarck Archipelago—	
New Britain	14,600
New Ireland	3,340
Lavongai	460
Admiralty Islands	800
Solomon Islands—	
Bougainville	3,880
Buka	220
Total	93,000

Information regarding physiography and climate will be found in Official Year Book, No. 22, p. 613, and in the *Official Handbook of the Territory*.

* Civil Administration in the Territory of New Guinea was suspended on 11th February, 1942, and military control commenced on 12th February, 1942. On 30th October, 1945, Civil Administration was resumed in that portion of the Territory which lies south of the Markham River. During the period of military control matters relating to the former Civil Administration were dealt with by the Department of External Territories, Canberra. The Minister for External Territories was empowered by National Security Regulations to exercise the powers and functions of the Administrator, officers and authorities of the Territory, and jurisdiction of the Supreme Court of New Guinea was vested in the Supreme Court of the Australian Capital Territory (see Papua, § 1, 2, page 289).

§ 2. Government.

1. **The Military Occupation (1914–19 War).**—On 17th September, 1914, the Acting Governor of German New Guinea signed terms of capitulation with the officer commanding a Naval and Military Expedition sent from Australia, and thereafter the Territory was under military administration until the establishment of Civil Government in May, 1921.

2. **Mandate.**—In 1919 it was decided by the Principal Allied and Associated Powers that the Territory of New Guinea, which Germany gave up as one of the terms of peace, should be entrusted under Mandate from the League of Nations to the Government of the Commonwealth. The issuing of the Mandate was, however, delayed, and it was not until 17th December, 1920, that its terms were settled, and the Mandate itself did not reach Australia until April, 1921.

The terms of the Mandate are given in Official Year Book No. 33 (see p. 264).

3. **New Guinea Act and Statute Law.**—In anticipation of the issuing of the Mandate the Commonwealth Parliament in September, 1920, passed the New Guinea Act 1920, by which the Governor-General was authorized to accept the Mandate when issued. The Territory was, by the Act, declared to be a Territory under the authority of the Commonwealth, with the name of the Territory of New Guinea.

The Act provided for an Administrator, while power to legislate for the Territory was to be exercised by the Governor-General, and provision was made for the observance of safeguards in the interests of the natives as set out in the Mandate.

In 1932 the Act was amended to provide for the establishment of a Legislative Council and an Executive Council for the Territory, the Executive Council to consist of nine members appointed by the Governor-General, of whom one shall not be an officer of the Territory. The Legislative Council is empowered to make Ordinances for the peace, order and good government of the Territory. Such Ordinances are subject to disallowance by the Governor-General who, however, is not now empowered to make Ordinances for the Territory. The amending Act was proclaimed to commence on 2nd May, 1933, and the Act is now entitled the New Guinea Act 1920–1935. The Acts of the Commonwealth Parliament do not (unless expressly so stated) extend to the Territory, but the Laws Repeal and Adopting Ordinance 1921–1939 provides that certain Acts and Ordinances shall be applied thereto.

4. **Legislative Council.**—The Legislative Council consists of the Administrator, the eight official members of the Executive Council and seven non-official members, the latter nominated by the Administrator and appointed by the Governor-General.

5. **Expropriation.**—The Treaty of Peace provided that German nationals resident in her former colonies might be repatriated, and that the property rights and interests of German nationals in former colonies might be retained and liquidated by the Allies, the proceeds being credited to Germany in part payment of the reparation payable by her under the Treaty. In pursuance of these powers, in September, 1920, the property of the principal German companies in the Territory, and in March, 1921, that of a large number of German planters, was vested in the Public Trustee. In 1926 and 1927 these plantations were transferred to private owners.

6. **Departments and Districts.**—The Administration is organized in eight Departments—Government Secretary; Treasury; District Services and Native Affairs; Public Health; Customs; Lands, Surveys, Mines and Forests; Agriculture; and Public Works.

For administrative purposes the Territory is divided into the seven following districts:—New Britain, comprising New Britain and adjacent islands; Morobe, Madang and Sepik on the mainland; New Ireland, comprising New Ireland, Lavongai and adjacent islands; Manus, comprising the Admiralty Group; and Kieta, the former German portion of the Solomon Islands. Each district is under a District Officer, assisted by a small staff.

7. **Reports to the League of Nations.**—Twenty reports to the League of Nations, in compliance with Article 6 of the Mandate, have been published, the latest being for the year ended 30th June, 1940.

§ 3. Population.

1. **White Population.**—The number of the white population for various years since 1885 is shown in the following table. At 30th June, 1941, the white population was 4,101, of whom 3,122 were British subjects.

TERRITORY OF NEW GUINEA : WHITE POPULATION.

Year.			Number.	Year.			Number.
1885	..	..	64	1938	..	..	4,445
1933	..	..	3,191	1939	..	..	4,608
1936	..	..	4,281	1940	..	..	4,399
1937	..	..	4,286	1941	..	..	4,101

2. **Asiatic Population.**—Malays seem to have been the first Asiatics brought by the Germans to German New Guinea; 37 of them were recorded on the mainland in 1885. About 1889 the New Guinea Company began to bring Chinese. Malays and Japanese in growing numbers from Singapore and Java to work on the plantations; in the year 1892 there were about 1,800 Asiatics on the mainland. By 1898 the number had decreased to 300 or 400, but it had risen to 1,830 at the time of the 1933 Census and at 30th June, 1941, numbered 2,228, of whom 2,199 were Chinese and 29 Japanese. The Japanese at the 1933 Census numbered 73. The Chinese provide the skilled artisans of the Territory, and many of them are small traders.

3. **Native Population.**—As a large portion of the Territory is not under Government influence it is not possible to obtain reliable figures in regard to the number of the natives.

The following table shows those enumerated as at 30th June, 1941 :—

TERRITORY OF NEW GUINEA : NATIVE POPULATION AT 30th JUNE, 1941. (Including Indentured Labourers.)

District.	Children.			Adults.			Total.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
Kieta ..	11,307	9,912	21,219	15,618	15,218	30,836	26,925	25,130	52,055
Madang ..	37,406	30,897	68,303	58,786	54,901	113,687	96,192	85,798	181,990
Manus ..	3,259	2,749	6,008	4,235	3,891	8,126	7,494	6,640	14,134
Morobe ..	29,334	26,348	55,682	42,541	39,076	81,617	71,875	65,424	137,299
New Britain ..	21,737	19,349	41,086	31,563	25,938	60,501	56,300	45,287	101,587
New Ireland ..	7,619	6,422	14,041	15,791	11,723	27,514	23,410	18,145	41,555
Sepik ..	32,223	27,772	59,995	44,049	45,060	89,109	76,272	72,832	149,104
Total ..	142,885	123,449	266,334	215,583	195,807	411,390	358,468	319,256	668,424

(a) Includes 6,560 Mission scholars, constabulary, etc., not distributed.

The number of natives indentured as labourers, mostly for plantation work, on 30th June, 1941, was 34,087, compared with 39,344 in the previous year.

§ 4. The Natives.

1. **General.**—The natives are divided into two main groups—Melanesian and Papuan—the former, with a few exceptions, constituting the population of the Bismarck Archipelago, the Solomon Islands, and the coastal districts of the New Guinea mainland, the latter inhabiting the interior of the mainland. Odd tribes of Negritos exist in the mountains of New Guinea. There is a strain of Papuan, and, possibly, of Polynesian blood in the Admiralty Islanders, while the Western Islanders and the inhabitants of the small islands east and south-east of New Ireland are Micronesians. (See Official Year Book, No. 16, p. 670, and *Official Handbook of the Territory*, Pt. V.)

2. **Land Tenure.**—Native customs in regard to the ownership and use of land may be briefly outlined as follows. The ownership and use of the land are generally individual, although, in some rare cases, particularly in North Bougainville, the communal system

exists. In districts where a great many coco-nut palms are growing on native lands it is often found that the land is the property of a chief or of one of the old men of the tribe, and that the coco-nut palms growing thereon are divided into small groves, and are the property of several members of the tribe. Customs with regard to the use of unoccupied forest lands vary. Right of inheritance to land is almost invariably through the maternal branch. (See Official Year Book No. 17, p. 634, and *Official Handbook of the Territory*.)

3. **Research Work.**—During the German occupation of the Territory a certain amount of research work was carried out, partly by scientific expeditions, and partly by missionaries and by a local resident. For many years an anthropologist was engaged consolidating the work already done, and extending it throughout the Territory. The results of his work appear in special reports.

4. **Education.**—Provision is made for the education of natives in the Ordinance of 1922-1938 under which the Administrator is authorized to establish schools, grant money therefor, prescribe instruction, and arrange for the training of teachers and other matters. The expenditure on native education in 1940-41 was £6,827. Though the natives are liable to pay education tax, none has been collected since 1922-23. The European teachers have been seconded from the Education Department of Queensland. During the year ended 30th June, 1941, the following schools were maintained by the Administration:—Native elementary schools and native day schools, Malaguna, Tavui, Nodup and Pila Pila, near Rabaul, and Kavieng and native elementary school at Chimbu (Morobe); native technical school, Malaguna; native agricultural school, Keravat. In addition there are schools for Europeans at Rabaul, Kavieng and Wau. A new day school for European children was erected at Bulolo in the Morobe District during the year.

A considerable amount of educational work is carried out by the missions, the schools maintained being of three classes; (a) elementary schools in villages; (b) intermediate boarding schools at head-quarters; and (c) high schools and technical schools. At 30th June, 1941, the various missions maintained 31 training centres, 51 high and technical schools, 144 elementary schools, and 2,397 village schools. The pupils numbered 65,598 at 30th June, 1940.

The missions also conduct schools for Chinese children in Rabaul and Kavieng.

The granting of assistance to mission schools is provided for by the Education Ordinance, but no grants have hitherto been made.

5. **Health of Natives.**—In a report dealing with the health of the natives in New Britain submitted before the 1914-19 War, it was stated that "the natives in the districts examined are not degenerate; but they are sick". The same qualification undoubtedly applies to the native population throughout the Territory.

The diseases taking the greatest toll of native life directly or through lowering vitality are—Malaria, respiratory diseases, dysentery, frambœsia, yaws, tropical ulcer, hookworm, filariasis and beriberi.

The Health Department of the Administration consists of (i) a staff of medical officers and orderlies, including travelling doctors; (ii) native hospitals at Government stations and sub-stations (its staff also supervises hospitals on plantations); (iii) a laboratory; (iv) training system for natives as medical orderlies; (v) scheme of distribution of medical necessities; and (vi) two leper-stations. It also undertakes the general oversight of sanitary conditions. The first Infant Welfare Centre in the Territory was opened in Malabunga in August, 1931.

6. **Missions.**—Several mission societies have operated in the Territory. The Society of the Sacred Heart of Jesus worked in the Bismarck Archipelago, the Society of the Holy Ghost and the Society of the Divine Word along the coast of North-East New Guinea from Sek to the Dutch border, the Marists in Buka and Bougainville. These are Roman Catholic Missions. The Protestant Missions are the Australian Methodist Mission in New Britain and New Ireland, the New Zealand Methodist Mission in Bougainville, the Liebenzell Mission in the Admiralty Group, the Lutheran Mission (supported and staffed by the Lutheran Churches in Australia and America) which

worked along the coast of North-East New Guinea from Sek to the Papuan border, the Melanesian Mission (Anglican) in New Britain, and the Seventh Day Adventist Mission in Bougainville and New Britain. All these societies include teaching and planting with their missionary work.

§ 5. Land Policy.

1. **Acquisition of Land.**—A short account of the modes of acquiring land appears in Official Year Book No. 19, p. 590, but considerations of space preclude its repetition.

2. **Land Policy of the Present Administration.**—The Land Ordinance 1922-1941 provides for sale as well as leasing of land belonging to the Administration. The divergence from the policy usually adopted by the British in the Pacific (including Papua), which provides for leasehold only, was made with a view to disposal by sale of the freehold properties taken over from Germans, and which until 1927 were controlled by the Expropriation Board. The general land policy is based on the leasehold principle. All grants or leases contain a reservation to the Administration of all minerals, including mineral oil. Leases are for a term of 99 years except where a shorter period is provided. Lands, except in towns, are classified by a Land Board into land suitable for agriculture (Class A) and land not so suitable (Class B), and the unimproved value of the land is assessed. In the case of agricultural leases for more than 30 years the rent is 5 per cent. of the unimproved value, with power to remit during the first ten years, and subject to reappraisal every 20 years. Pastoral leases of lands of Class B may be granted for terms not exceeding 30 years, at a rental of 2½ per cent. of the unimproved value, subject to reappraisal every 10 years. Agricultural leases are subject to improvement conditions and pastoral leases to stocking conditions. Leases of town allotments may be granted for terms not exceeding 99 years, at a rent to be fixed at such percentage of the unimproved value as is prescribed.

The following table shows the leases in force on 30th June, 1941 :—

TERRITORY OF NEW GUINEA : LEASES IN FORCE, 30th JUNE, 1941.

Tenure.	No. of Leases.	Area.
		Acres.
Agricultural leases	442	141,628
Pastoral leases	3	9,496
Residence and business leases	320	334
Special leases	56	707
Mission leases	441	1,542
Chinatown leases	213	58
Long period leases from German regime	115	5,189

The area of the Territory is estimated at 59,517,593 acres, of which 906,763 acres had been purchased from the natives by the Administration to 30th June, 1941. This alienated land comprised 521,057 acres of freehold, 158,952 acres of leasehold, 200,144 acres held by the Administration, and 26,610 acres vested in the Director of District Services and Native Affairs as a trustee for natives. The area alienated in 1940-41 was 3,360 acres.

3. **Registration of Titles.**—Under German law there was a system of registration of titles in a "Ground Book," but registration did not confer an indefeasible title. The German system has been replaced by one modelled on the Torrens plan, embodied in an Ordinance entitled the Lands Registration Ordinance 1924-1939.

§ 6. Production.

1. **General.**—The natives have been described as a people of peasant proprietors, practising a crude form of agriculture. Their gardens and groves furnish but a small amount of produce for oversea trade, and the exports of the Territory grew only as European plantations were made, and natives were employed to work them.

Scientific methods of cultivation have been adopted, and production has been greatly increased thereby. Bounties are paid by the Commonwealth Government on cocoa beans and shells, hemp and coir, sago, vanilla beans, bamboos and rattans, and spices and kapok, produced in the Territory and exported direct to Australia for home consumption.

2. *Agriculture.*—(i) *General.* Under the supervision of the Director of Agriculture soil analysis has been undertaken in different parts of the Territory and an agricultural chemist was appointed in 1939 to carry out this specialized work. A demonstration plantation has been established at Keravat where natives are being trained in tropical agriculture. A laboratory and a herbarium have been established, an entomologist and economic botanist engaged, and travelling inspectors appointed for the purpose of combating plant pests. Experiments are being carried out with a variety of crops. The foregoing measures, in conjunction with the Papua and New Guinea Bounties Act 1937 and the preference given by the Commonwealth Tariff to certain produce grown in the Territories, have greatly stimulated tropical agriculture.

(a) *Coco-nuts.* Coco-nut growing was, prior to the outbreak of war in September, 1939, by far the most important industry in the Territory, but low prices followed by the collapse of the world copra market checked expansion, the exports in 1940-41 being valued at only £266,970 compared with £504,627 in the previous year and with £1,231,309 (76,409 tons) in the peak year 1936-37.

(b) *Tobacco.* In 1940-41 many planters were cultivating tobacco to cater for the local market. Two companies manufactured tobacco suitable for issue to the natives or for trade. In some instances planters issued the dry leaf to the native labourers who make their own cigars and cigarettes.

(c) *Cotton.* In 1924-25 the Government obtained 1,615 lb. of cotton seed, and cultivation was tried at the experimental stations as well as by private planters, including a few natives, but little progress has been made.

(d) *Kapok.* During 1940-41 the cultivation of kapok continued on a small scale, the local demand being more than sufficient to absorb the available crop.

(e) *Cocoa.* Greater interest is being displayed in the cultivation of cocoa. The quality of the beans produced is good, and 292 tons were exported during 1940-41.

(f) *Desiccated Coco-nut.* Three desiccated coco-nut factories have been established in the Territory. The quantity exported during 1940-41 was 1,877 tons, an increase of 96 tons over the previous year's figure.

(g) *Coffee.* In 1940-41 two plantations of coffee were in satisfactory condition and were commencing to yield. Seventy-four tons of coffee of good quality, valued at £5,525 were exported during that year and were well received on the Australian market.

(h) *Rubber.* The tapping of rubber trees was increased during 1940-41 mainly because of the satisfactory price of rubber.

(i) *Other Crops.* The climate and soil of New Guinea are suitable for the cultivation of rice, Manilla hemp, cinchona, nutmeg, vanilla, peanuts and maize, but hitherto their cultivation has either not advanced beyond the experimental stage or has been attempted on a small scale only. Sugar-cane of many varieties flourishes, and the natives cultivate extensive areas for their own use; other indigenous food-producing plants include the sago palm and the cassava.

(j) *Plants Yielding Power Alcohol.* It seems probable that alcohol for power purposes will be produced economically. The sago palm and nipa palm yield as much as 60 gallons a ton, and in places are abundant.

(ii) *Plantations.* During 1934-35 the Administration disposed of the several plantations maintained by it with the exception of the demonstration plantation at Keravat. The principal crops grown on plantations are shown in the table hereunder for the year ended 30th June, 1940. The figures are not complete, but they give an indication of the progress of agriculture in the Territory to that date.

TERRITORY OF NEW GUINEA : PLANTATIONS, 1939-40.

(Excluding Native Reserves.)

Crop.				Area Planted.(a)	Area Bearing.	Yield.
				Acres.	Acres.	Tons.
Coco-nuts	..	..	..	261,676	210,954	(b)71,583
Cocoa	..	..	..	5,827	2,301	570
Coffee	..	..	..	2,792	1,935	56
Rubber	..	..	..	2,481	1,591	95
Kapok	..	..	..	556	321	15
Native Food (c)	..	..	..	3,289	1,453	2,099
Other	..	..	..	912	106	..
Total	..	..	..	277,533	218,661	..

(a) Includes inter-planted crops. (b) Copra; desiccated coco-nut, 696 tons, also produced.
(c) Native food of all kinds is mostly grown between young coco-nut palms not yet in bearing.

The area of plantations for various years from 1885 to 1940 is shown hereunder. As in the case of the previous table, the figures exclude native plantations :—

TERRITORY OF NEW GUINEA : PLANTATIONS.

Year ended June—				Total Area.	Area Planted.	Area under Coco-nuts (including Area not in Bearing).
				Acres.	Acres.	Acres.
1885	..	..	..	148	(a)	(a)
1895	..	..	..	2,152	(a)	(a)
1911	..	..	..	58,837	(a)	51,510
1914	..	..	..	84,488	(a)	76,847
1924	..	..	..	411,275	(a)	172,373
1932	..	..	..	460,942	216,730	211,882
1937	..	..	..	487,375	244,066	234,189
1938	..	..	..	496,118	262,547	239,976
1939	..	..	..	504,000	264,877	253,235
1940	..	..	..	525,965	277,533	261,676

(a) Not available.

3. **Live Stock.**—The coco-nut plantations are now of a sufficient area to maintain numerous live stock, the stock being depastured on the indigenous grasses growing between the rows of palms. In 1939-40 there were 1,323 horses, 20,494 cattle, 1,184 sheep, 9,327 goats, and 6,160 pigs (excluding the large number of pigs kept by the natives).

4. **Timber.**—An investigation of the timber resources was made by the Commonwealth Inspector-General of Forests, and a report in connexion therewith was published in 1926. According to this report, while offering no prospects of immediate gain to large sawmilling interests, the Territory possesses forest potentialities of a high order. A survey of the timber resources of the Morobe District in 1934 indicated, however, that a pine forest in the Bulolo Valley contains approximately 200 million super. feet of millable timber; it is proposed to harvest this forest over a period of years and progressively to re-afforest the area. In North-East New Guinea the Lutheran Mission and the Holy Ghost Mission both possess up-to-date sawmilling plants, while most of the timber required in the Archipelago is supplied by the Sacred Heart Mission's sawmill and three privately owned mills in New Britain. Timber cut on permit areas during 1940-41 was 5,785,027 super. feet in the log. The exports, consisting principally of timber in the log, amounted to 6,272,904 super. feet in 1940-41.

The Forestry Ordinance 1936-1937 provides for the issue of permits and licences to cut timber. Timber growing on native lands cannot be acquired by private purchasers directly from the natives, but must be obtained through the Administration. A royalty is payable on all forest produce taken under a permit or licence. Eight timber permits were issued during 1940-41 and 26 permits were in force at 30th June, 1941, embracing an area of approximately 199,019 acres.

5. **Fisheries.**—The wealth of the waters of the Territory has been little exploited. Fish is caught at many places along the coast to supply the small local demand of the natives and of the few resident Europeans. Pearl-shell is exported in fair quantities, while bêche-de-mer, trochus-shell and tortoise-shell also figure amongst the exports. The value of marine products exported in 1940-41 was £9,255, compared with £11,956 in the previous year.

6. **Mining.**—Except for gold there has been little mining in New Guinea. Gold has been discovered on the Waria, the Ramu, the Francisco, and the Markham Rivers, and in tributaries of the Sepik River. Rich gold was discovered in the Morobe District in 1926; the field is situated about 60 miles (35 by air) inland from Salamaua, the nearest coastal port. Communication was established with the coast by a regular aeroplane service. Osmiridium is reported to have been found on the upper tributaries of the Ramu, and platinum on the Kabenau River. Copper has been discovered in the form of chalcopyrite and malachite in the Baining District. Iron occurs as magnesite and hematite in the Baining District, apparently in large quantities. Sulphur occurs in several localities in the volcanic regions of the Territory. Brown coal has been found on the mainland in the vicinity of Astrolabe Bay, and in the southern portion of New Ireland.

Mining is regulated by the Mining Ordinance 1928-1940. Copies of the Ordinance and Regulations made thereunder may be obtained from the Secretary, Department of External Territories, Canberra.

The following table shows the production of gold during the five years 1936-37 to 1940-41 :—

TERRITORY OF NEW GUINEA : GOLD PRODUCTION.

Year.					Quantity.	Value.(a)
					Fine oz.	£
1936-37	..	..	..	..	223,120	1,938,694
1937-38	..	..	..	..	223,929	1,935,954
1938-39	..	..	..	..	237,705	2,153,018
1939-40	..	..	..	..	278,922	2,917,526
1940-41	..	..	..	..	263,097	2,808,835

(a) Valued at average price realized for fine gold in Australia.

Since the high market price of gold has been maintained, the search for profitable areas in various parts of the Territory has not diminished and systematic testing by drilling and other means has been undertaken on alluvial areas previously considered unworthy of attention. Although there were no new discoveries of alluvial or reef gold during 1941, work proceeded steadily on the known gold-bearing areas.

A search for petroleum has been actively conducted on the mainland. The Petroleum Ordinance 1936 has been superseded by the Petroleum (Prospecting and Mining) Ordinance 1938-1939, which has facilitated the carrying out of geological surveys and prospecting activities generally. On 30th June, 1941, two permits to search for petroleum were in force.

§ 7. Trade.

1. **Customs Tariff.**—With the exception of high revenue rates on ale, spirits, beverages and tobacco and a duty of 3d. per gallon on petrol, kerosene and lubricating oil, the tariff of the Territory of New Guinea is generally on a 10 per cent. ad valorem

basis. Only 72 items are mentioned in the import schedule, of which approximately 60 are on the free list consisting of articles for use by the Administrator, the Trade Commissioners and the Missions, and medical supplies, live stock, meat, fish, fresh fruit, vegetables and certain essential manufactures for use in the Territory. The rate of duty for the remaining items as well as for all other goods not mentioned in the schedule is 10 per cent. ad valorem. No preferential tariff rates are provided in the schedule.

Export duties are levied on copra, trepang, shell, feathers and sulphur. When the price, or the assessed value of copra is less than £5 15s. per ton no tariff is imposed, but when the price exceeds this figure up to £11 per ton 2s. 6d. per ton is charged, which increases on a sliding scale to 11s. 6d. per ton as the price rises to £18, with an additional 2s. per ton for every further increase of £1 in the price of copra. The imports in 1940-41 amounted to £962,129 on which £147,452 was received in import duties, while £590 was paid in export duties and royalties.

Provision is made in the Australian Customs Tariff (Papua and New Guinea Preference) 1936 for the free entry into Australia of certain goods produced and imported direct from the Territory of New Guinea (see Chapter XII. "Trade"), and a proclamation of 25th September, 1935 exempted from primage duty goods produced or manufactured in the Territory.

2. Imports and Exports.—Values of the principal items of imports and exports for the years 1936-37 to 1940-41 are shown below. The values of exports are expressed in Australian currency, but it is not possible to determine accurately the currency of the £ in the table of imports.

TERRITORY OF NEW GUINEA : IMPORTS AND EXPORTS.

Particulars.	1936-37..	1937-38.	1938-39.	1939-40.	1940-41.
IMPORTS.					
	£	£	£	£	£
Foodstuffs of animal origin ..	142,943	157,391	152,023	165,637	127,464
Foodstuffs of vegetable origin ..	186,732	190,657	158,895	164,751	145,070
Spirituous and alcoholic liquors ..	50,550	52,385	54,969	50,161	46,753
Tobacco and preparations thereof	59,045	58,155	63,122	61,160	51,931
Live animals	1,870	1,843	1,328	664	508
Animal substances	1,227	961	1,124	1,587	179
Vegetable substances and fibres	3,539	4,191	3,307	3,640	2,386
Apparel, textiles and manufac- tured fibres	152,923	182,590	138,077	130,360	93,164
Oils, fats and waxes	56,982	72,080	65,901	97,370	72,153
Paints and varnishes	14,422	11,044	10,934	9,932	7,818
Stones and minerals	14,039	16,030	8,164	4,314	5,439
Metals, manufactures and mach- inery	431,216	635,991	470,781	387,125	252,750
Rubber and leather and manu- factures thereof	13,810	15,663	16,365	21,668	16,739
Wood and wicker	28,860	33,565	29,195	20,617	9,105
Earthenware, cement, glass, etc.	17,113	14,251	13,215	13,549	8,383
Paper and stationery	22,917	24,026	22,829	24,169	19,122
Jewellery and fancy goods ..	11,282	21,328	14,133	10,231	10,045
Optical and scientific instruments	18,610	21,377	22,318	14,750	17,140
Drugs, chemicals and fertilizers ..	44,907	46,878	46,163	45,101	45,539
Miscellaneous	38,636	50,561	47,992	41,311	30,441
Specie	80,400	31,500	..	..	..
Total	1,392,023	1,642,467	1,340,835	1,268,097	962,129

TERRITORY OF NEW GUINEA: IMPORTS AND EXPORTS—*continued.*

Particulars.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
EXPORTS.					
	£	£	£	£	£
Copra	1,231,309	847,734	727,949	504,627	266,970
Cocoa	6,600	4,475	6,580	11,340	11,680
Ivory nuts	767	162	..	7	..
Trepang	1,350	2,250	2,025	1,680	1,870
Shell (trochus, etc.)	26,960	12,478	10,560	10,227	7,383
Tortoise-shell	50	91	89	49	2
Gold	2,020,667	2,028,980	2,129,263	3,021,731	2,797,226
Desiccated coco-nut	86,930	73,423	69,960	89,050	93,850
Rubber .. ..	..	242	4,050	13,328	19,027
Miscellaneous	45,073	25,334	23,419	29,081	55,976
Total	3,419,706	2,995,169	2,973,895	3,681,120	3,253,984

3. Direction of Trade.—Particulars of the countries of origin of the imports into the Territory of New Guinea and of destination of the goods shipped therefrom during the years 1938-39 to 1940-41, are given in the following table.

TERRITORY OF NEW GUINEA: DIRECTION OF TRADE.

Country.	Imports.			Exports.		
	1938-39.	1939-40.	1940-41.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£	£
Australia ..	563,594	583,291	489,369	2,326,269	3,283,246	3,039,767
United Kingdom	154,501	119,042	79,136	337,605	220,200	47,599
Other British ..	48,163	55,306	63,745	..	..	29,976
China ..	69,831	87,412	43,317	17,428	11,115	1,870
Japan ..	46,627	34,921	28,063	7,445	7,266	28,822
France ..	3,806	2,523	1,275	6,193	12,291	..
Germany ..	71,245	17,430	4,595	31,829	2,669	..
U.S.A. ..	265,591	247,189	167,437	..	62,529	21,131
Other ..	117,477	120,983	85,192	247,126	81,804	84,819
Total ..	1,340,835	1,268,097	962,129	2,973,895	3,681,120	3,253,984

The bulk of the imports into the Territory of foodstuffs, beer, coal, paints, boats, launches and soap comes from Australia, which also supplies large quantities of machinery and metal manufactures, drugs, explosives, tobacco, cigarettes, apparel, boots, leather manufactures, timber, stationery and polishes.

§ 8. Shipping and Communication.

1. **General.**—Prior to the Japanese invasion a subsidized mail service between New Guinea and Australia was maintained by Burns, Philp and Coy. Ltd., which company also operated a two-monthly non-subsidized service between Australia, New Guinea, Hong Kong and Saigon. The Dutch Royal Packet Navigation Company's vessel called at Rabaul every five weeks en route from Singapore to Australia. Shipping within the Territory is regulated by the Shipping Ordinances 1936 and the Coastal Shipping, Ports and Harbours Regulations.

2. **Oversea Tonnage in 1940-41.**—The number and net tonnage of oversea vessels which entered and cleared the Territory during 1940-41 are shown hereunder.

TERRITORY OF NEW GUINEA : SHIPPING, 1940-41.

Nationality.	Vessels Entered.		Vessels Cleared.		Total.	
	Number.	Net Tonnage.	Number.	Net Tonnage.	Number.	Net Tonnage.
American	4	6,132	4	6,132	8	12,264
British	67	171,669	68	174,684	135	346,353
Dutch	5	12,090	5	12,090	10	24,180
Greek	1	3,209	1	3,209	2	6,418
Japanese	14	15,452	14	15,452	28	30,904
Norwegian	1	1,482	1	1,482	2	2,964
Panamanian	1	1,321	1	1,321	2	2,642
Thai	1	1,995	1	1,995	2	3,990
Total	94	213,350	95	216,365	189	429,715

3. **Local Shipping.**—Inter island shipping services were maintained by the steamers and motor vessels of Burns, Philp and Coy. Ltd., and W. R. Carpenter and Coy. Ltd. A number of smaller motor vessels were also engaged in this trade.

4. **Land Communication.**—Means of communication on land are scanty. There are no railways. Roads lead from Rabaul to places within 30 or 40 miles, and there is a road 200 miles long in New Ireland. Elsewhere there are few roads outside plantations and the District Officers' stations. The large rivers of the mainland are as yet but little used.

There is a high-power wireless station at Rabaul, and low-power installations at the out-stations, including Salamaua and Wau.

5. **Communication by Air.**—The discovery of gold in New Guinea resulted in great aviation activity in the vicinity of the gold-fields. On account of the mountainous country and dense undergrowth between the coast and the gold-fields the task of transporting food and stores to the fields and of bringing the gold to the seaboard by land is an irksome and costly process. The fields are situated about 60 miles (35 by air) inland from Salamaua, and whereas aircraft cover the distance in approximately an hour, the nature of the country is such that a journey by other means occupies more than a week. During 1931-32 an air service was established between Port Moresby and the gold-fields, reducing the time occupied by the journey from Australia by about seven days. At 30th June, 1941, 41 aeroplanes were operating in New Guinea.

A weekly subsidized air service between Sydney and Rabaul came into operation on 30th May, 1938, and ceased in January, 1942. Passengers and mails were carried and the route followed was Sydney, Brisbane, Rockhampton, Townsville, Cairns, Cooktown, Port Moresby, Salamaua and Rabaul. Qantas now operates a tri-weekly air service between Australia and Port Moresby in Papua, and Lae, in New Guinea.

Further reference to New Guinea air activities is contained in Chapter V. "Transport and Communication" (see p. 167).

§ 9. Revenue and Expenditure.

Details of the revenue collected from various sources and the expenditure during each of the years 1936-37 to 1940-41 are given hereunder :—

TERRITORY OF NEW GUINEA : REVENUE AND EXPENDITURE.

Particulars.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
REVENUE.					
Taxation—	£	£	£	£	£
Customs(a)	233,657	247,062	214,629	207,261	158,221
Licences	12,654	13,087	13,796	12,667	10,408
Native Head Tax	21,859	20,481	21,417	20,025	21,786
Stamp duties	6,861	6,182	6,467	5,978	3,906
Postal	25,208	47,240	27,163	20,340	15,583
Lands	47,006	16,179	18,416	15,281	16,357
Mining—					
Royalty on gold	97,622	97,464	107,975	143,906	119,792
Other	24,154	19,479	16,403	40,298	50,995
Fees and fines	24,377	19,285	17,947	16,155	13,615
Sales of stores, etc.	2,605	2,472	2,170	2,428	2,011
Miscellaneous	15,067	17,467	14,453	12,351	11,076
Total	481,070	506,398	460,836	496,690	423,750
EXPENDITURE.					
	£	£	£	£	£
Treasury and Audit	66,177	52,570	54,736	60,628	45,530
Agriculture	15,851	17,722	19,424	20,337	19,475
Public Justice	31,209	32,809	34,245	34,530	31,606
Public Health	73,191	80,377	89,784	85,207	80,162
Public Works	29,228	30,954	34,802	28,097	22,730
District Services and Native Affairs	109,705	115,048	125,876	127,296	106,107
New Works	66,223	70,011	69,146	63,257	48,509
Native Welfare	6,177	7,185	6,453	6,621	6,078
Other	62,357	61,011	68,114	74,641	71,595
Total	460,118	508,613	502,580	500,614	431,792

(a) Includes harbour dues, wharfage and storage fees.

(b) Includes £40,011. expenditure due to the volcanic eruption.

NAURU (Mandated)*

1. General.—Nauru is an oval-shaped atoll about 12 miles in circumference, having an area of about 5,263 acres, of which approximately two-thirds is phosphate-bearing. It is situated in longitude 166° E., and is 26 miles south of the Equator. Portion of the island between the sandy beach and the coral cliffs is fertile, and it is there that the Nauruans reside. With the exception of a small fringe around an inland lagoon, the plateau which contains the phosphate deposits possesses few food plants and is uninhabited, but portion of the area has been planted with fruit trees. The system

* Communications with Nauru ceased on 25th August, 1942, and it was assumed that the Island was occupied by Japanese Forces on or about that date. The island was re-occupied by a joint Australian Naval and Military Force on 14th September, 1945, and Civil Administration was re-established on 1st November, 1945.

of land tenure is governed by an old custom, and, with the exception of small allotments held by the Government, the British Phosphate Commissioners and the Missions, the whole of the island is owned by individual natives. The average shade temperature ranges between 72° and 95° F., and the average humidity between 70 and 80 per cent. The average rainfall is 85 inches, but droughts occasionally occur, and in 1916 and 1917 only 40 inches were received for the two years. Similarly in 1938 only 20.94 inches were recorded.

2. **History.**—The island, discovered by Captain Fearn in 1798, was annexed by Germany in 1888, and prior to 1914 was part of the protectorate of German New Guinea.

In November, 1914, Nauru was occupied by a detachment from the Australian Naval and Military Expedition at Rabaul, and it was included in the cession of colonies made by Germany in 1919 to the Allied and Associated Powers, whose representatives agreed that a mandate for its administration should be conferred upon His Britannic Majesty. The mandate, which is in similar terms to that for the Territory of New Guinea, was confirmed by the Council of the League of Nations on the 17th December, 1920. On 2nd July, 1919, the British, Australian and New Zealand Governments agreed that the administration (which, since 1915, had been in charge of an official appointed by the British Colonial Office) should be vested in an Administrator who took up duty in June, 1921. The Agreement between the three Governments was approved by the Commonwealth Parliament in the Nauru Island Agreement Act 1919, and is shown in the Schedule to that Act. A supplementary agreement concerning Nauru was drafted in May, 1923, and ratified by the Commonwealth Parliament by the Nauru Island Agreement Act 1932.

3. **Administration.**—The administration of the island is vested in the Administrator, who is obliged to conform to instructions issued by the Government which appointed him, and all ordinances made by him are subject to confirmation or disallowance by the Governor-General of Australia acting on the advice of the Federal Executive Council. All administration expenses are met from local revenue. Native industries such as canoe-building, fishing, mat-making, etc., are encouraged by the provision of prizes at annual competitions. An agency of the Commonwealth Savings Bank has been established. There is a co-operative store managed to a large extent by the natives. The store books, however, are audited by Government officers. Natives are not allowed to carry or be in possession of firearms, and the use by them of intoxicating liquors and deleterious drugs is prohibited.

4. **Population.**—The population figures on 1st April in each of the years from 1937 to 1939 and on 31st December, 1940 and 1941, are given hereunder :—

NAURU : POPULATION.

Nationality.	1937.	1938.	1939.	1940.	1941.
Europeans	194	179	171	192	68
Chinese	1,261	1,533	1,512	1,350	584
Nauruans (a)	1,658	1,727	1,765	1,761	1,827
Other Pacific Islanders ..	4	27	44	49	193
Total	3,117	3,466	3,492	3,352	2,672

(a) The natives of Nauru are Micronesians.

Births in 1941 numbered 83, all of which were Nauruans. There were 13 marriages (Nauruans), and 31 deaths (26 Nauruans and 5 Chinese).

5. **Health.**—Cases of the usual diseases known in the Pacific occur. Venereal disease is rare, but elephantiasis is occasionally met with. An area has been set apart for the segregation of lepers, and the latest methods of treatment are

applied. The total number of persons receiving treatment at 31st December, 1940, was 136, of whom 44 were in the Leper Segregation Hospital. Two hospitals are maintained on the island, one by the Administration for Nauruans, and one by the British Phosphate Commission for its employees. In common with other natives, the Nauruans are very susceptible to tuberculosis and influenza, and in 1921 an influenza epidemic caused the deaths of 230 islanders. Dysentery, both amœbic and bacillary, is endemic. A regular anti-mosquito campaign is conducted. Steps have been taken by the authorities to improve the water supply and to provide efficient sanitation generally. Every Nauruan is required to undergo a medical examination once a month. Baby clinics have been established to give help and advice to Nauruan mothers in regard to infant nurture.

6. Education.—Formerly the education of Nauruan and other native children was undertaken by the Missions subsidized by the Administration, but on 1st October, 1923, the Administration assumed responsibility for education. At the close of 1940 there were seven primary and two post-primary schools for natives and a primary school for European children. A total of 37 European children and 609 native children were receiving instruction. The school for European children was in charge of a teacher on loan from the Education Department of Victoria who also supervised educational matters generally. The curriculum is similar to that of corresponding schools in Australia, and the teaching is, as far as possible, wholly in English. Education is compulsory between the ages of six and sixteen for Nauruan and other native children; after the termination of ordinary school attendance, twelve months are devoted to technical training.

7. Judiciary.—The judicial power is vested in the Administrator in a Central Court and a District Court. The right of appeal is provided.

8. Religion.—The London Missionary Society (Protestant) and the Sacred Heart of Jesus Mission (Roman Catholic) operate in Nauru.

9. Phosphate Deposits.—(i) *General*. From 1906 to 1919 the deposits were worked by the Pacific Phosphate Company, which also worked the deposits on Ocean Island (about 165 miles east of Nauru and part of the Gilbert and Ellice Islands Colony administered by the Colonial Office). The quantity on Nauru has been estimated at not less than 50,000,000 tons, and the exports average 85 per cent. to 88 per cent. of tricalcium phosphate.

The interests of the Pacific Phosphate Company in the two islands (though not in other islands in the Pacific in which it had workings) were bought by the British, Australian and New Zealand Governments in 1919 for £3,500,000, the purchase money being contributed in the proportions of 42, 42, and 16 per cent. respectively. The Agreement of 2nd July, 1919, provides for the working of the deposits by the British Phosphate Commission of three members, one appointed by each Government; and the three countries are to receive the output in the same proportions of 42, 42, and 16 per cent.

(ii) *Royalty on Phosphate*. By an agreement entered into between the British Phosphate Commissioners and the Nauruan landowners in 1927 provision was made, *inter alia*, for the payment of a royalty of 7½d. per ton of phosphate exported as follows :—

- (a) 4d. per ton to be paid to the Nauruan landowner concerned;
- (b) 1½d. per ton to the Administrator for the benefit of the Nauruan people;
- (c) 2d. per ton to the Administrator to be held in trust for the Nauruan landowner concerned and invested at compound interest for a period of 20 years. The capital will then remain invested and the interest thereon will be paid to the landowner.

The rates specified above were to have effect for a period not exceeding 20 years on and from 1st July, 1927, but the royalty of 4d. per ton to the Nauruan landowner was subject to adjustment for the second, third and fourth five-yearly period by increasing or decreasing it pro rata to any increase or decrease of the export price of the phosphate. The royalty for the second five-yearly period was increased to 4½d. per ton.

In June, 1937, the price of phosphate had fallen to 14s. per ton and consequently under the terms of the original Agreement the royalty would have been reduced to 1½d. per ton. By an amendment of the Lands Ordinance in 1939 the agreement was extended for a period of 20 years, or to 30th June, 1967. The royalty of 2d. per ton paid to the Administrator to be held in trust and invested was increased from 1st July, 1937, to 2½d. per ton. From the same date a royalty of 4d. per ton was paid to the Nauruan landholders instead of 1½d. per ton under the original Agreement. This rate is subject to adjustment at the end of five years, and from 1st July, 1947, is to be 5d. per ton if the price of phosphate is 12s. per ton or less, with an additional ½d. per ton for each 1s. above 12s. up to a maximum royalty of 6d. per ton.

The amending Ordinance also increased, from 1st July, 1947, the lump sum to £45 per acre and to £7 10s. for areas less than 1 acre, payable to landowners from whom phosphate-bearing lands are leased.

(iii) *Nauru and Ocean Island Phosphate Industry.* The following table gives particulars regarding exports of phosphate during the years 1937-38 to 1941-42:—

NAURU AND OCEAN ISLAND : EXPORTS OF PHOSPHATE.

Year.	Total.	To Australia.	To New Zealand.
	Tons.	Per cent.	Per cent.
1937-38	1,169,361	66.17	24.81
1938-39	1,228,590	67.06	23.63
1939-40	1,243,428	54.49	32.14
1940-41	626,149	50.14	38.76
1941-42	144,454	53.79	46.21

From Nauru alone during the calendar year 1941 the export was 99,150 tons.

(iv) *Accounts of Commission.* A statement for the five years ended June, 1942, is given hereunder:—

NAURU AND OCEAN ISLAND : SALES OF PHOSPHATE.

Heading.	1937-38.	1938-39.	1939-40.	1940-41.	1941-42.
	£	£	£	£	£
Receipts from Sales, etc. ..	944,068	909,027	1,041,418	749,354	387,464
F.o.b. cost, including interest on capital, sinking fund, etc.	940,059	906,133	1,037,208	745,233	327,607

The amount due by the British Phosphate Commission to the partner Governments for purchase-money and other capital sums was £3,666,457 on 30th June, 1921, and at 30th June, 1942, this had been reduced to £3,024,373. The f.o.b. cost in 1941-42 includes a sum of £112,027 consisting of interest at 6 per cent. upon the purchase-price and a contribution to a sinking fund for the redemption of the capital debt in 50 years. The redemption fund now totals £507,127.

(v) *Employees.* Apart from a limited number of Europeans and a few Pacific Islanders, the employees are Chinese engaged under a three years' contract. A few Nauruans are employed occasionally.

10. *Trade.*—The Customs Tariff of Nauru provides for the free admission of all goods other than cigars, cigarettes, tobacco, spirits, wines, beer, cider, and perry, and cylinder blocks for motor cycle engines. Articles imported by the Administration for its own use and spirits for scientific purposes are exempt.

The Tariff rates apply to all countries alike. Information regarding imports and exports for the years 1937 to 1941 is shown in the following table.

NAURU : IMPORTS AND EXPORTS.

Heading.		Year ended 31st December—				
		1937.	1938.	1939.	1940.	1941.
Imports ..	£	144,454	272,256	170,624	192,749	106,978
Exports—						
Phosphate ..	tons	688,900	841,050	932,100	808,400	99,150
	£	513,989	546,683	605,974	541,168	69,375

Of the total imports Australia supplied £72,348 or 68 per cent. during 1941; the balance came mainly from United Kingdom, China, Dutch East Indies, New Zealand and Canada in that order.

In 1941 56,850 tons of phosphates were exported to Australia, and 42,300 tons to New Zealand.

11. Revenue and Expenditure.—The revenue and expenditure of the Administration during the years 1937 to 1941 were as follows :—

NAURU : REVENUE AND EXPENDITURE.

Heading		Year ended 31st December—				
		1937.	1938.	1939.	1940.	1941.
		£	£	£	£	£
Revenue		53,343	29,428	33,084	27,104	12,023
Expenditure		29,311	30,287	29,391	26,223	23,951

Of the revenue in 1941, royalty on phosphate amounted to £5,630, Post Office receipts £600, capitation tax £1,611, import duty £1,258, interest on investments £1,334, and harbour dues £78. At the close of 1941 the accumulated funds of the Administration amounted to £46,297.

CHAPTER XII.

TRADE.

§ 1. Introductory.

Constitutional Powers of the Commonwealth in regard to Commerce.—The powers vested in the Commonwealth Parliament by the Commonwealth Constitution with respect to overseas trade and commerce will be found in Sub-section 51 (i) and Sections 86 to 95 (see pp. 14 and 20 *ante*).

§ 2. Commonwealth Legislation affecting Oversea Trade.

1. General.—In previous issues of the Official Year Book brief particulars of the various Commonwealth Acts and amendments thereof affecting overseas trade are given in chronological order. The Customs Acts represent the administrative or machinery Acts under which the Customs Department operates, while the Customs Tariff provides the statutory authority for imposing the actual rates of duties operative from time to time.

The Acts at present in force are: The Customs Act 1901–1936; Customs Tariff, 1933–1939; Customs Tariff (Canadian Preference) 1934–1939; Customs Tariff (Exchange Adjustment) Act, 1933–1939; Customs Tariff (Industries Preservation) Act, 1921–1936; Customs Tariff (Newfoundland Preference) 1939; Customs Tariff (New Zealand Preference) Agreement Act, 1933; Customs Tariff (New Zealand Preference) 1933–1934; Customs Tariff (Papua and New Guinea Preference) 1936; Customs Tariff (Southern Rhodesian Preference) 1941; Customs Tariff (Primage Duties), 1934; Trading with Enemy Act, 1939–1940. A statement of the Acts passed in 1943 and 1944 appears in par. 16 on page 330.

2. Customs Tariffs.—The Customs Tariff 1921–1930 provided a British Preferential Tariff, an Intermediate Tariff and a General Tariff. The Intermediate Tariff was omitted from the Customs Tariff 1933 but was restored by the Customs Tariff 1936.

“British Preferential Tariff” rates of duty apply to goods the produce or manufacture of the United Kingdom provided such goods comply with the laws and statutory regulations for the time being in force affecting the grant of British preference, and that the goods have been shipped in the United Kingdom to Australia and have not been transhipped, or, if transhipped, it is proved to the satisfaction of the Collector of Customs that the intended destination of the goods, when originally shipped from the United Kingdom, was Australia. The benefits of the British Preferential Tariff may be extended wholly or in part to any British non-self-governing colony, British protectorate or to certain territories governed under British mandate. The benefits of the British Preferential Tariff have been extended by separate Trade Agreements to certain goods the produce of the Dominions of Canada and New Zealand and to certain goods the produce of British non-self-governing colonies.

In submitting tariff schedules to Parliament on 20th March, 1936, the Minister for Trade and Customs said: “Another new feature of the schedules is the Intermediate Tariff. It has been re-introduced to provide a convenient avenue for expressing the level of duties which the Government propose should form the basis for trade treaties. The rates proposed under the protective items of the Intermediate Tariff express, in every case, a protective level for Australian industry as well as preserving the margins required under the Ottawa Agreement.” The Customs Tariff 1933–1939 provides that the Governor-General may from time to time by proclamation declare that the Intermediate Tariff shall apply from a date and time specified to goods specified in the proclamation which are the produce or manufacture of the British or foreign country specified in the proclamation. The Intermediate Tariff was brought into operation on 1st January, 1937, by Customs Proclamations Nos. 338, 342, 343 and 369, which granted intermediate rates of duty to specified goods the produce of “Proclaimed Countries.” The countries proclaimed include the United Kingdom, the Dominions and Colonies in respect of goods which do not comply with the conditions prescribed for the application of a lower tariff

and most foreign countries under the terms entitling them to most-favoured-nation treatment. The United States of America was an important exception until 17th February, 1943, when Customs Proclamation No. 571 included it in the list of "Proclaimed Countries".

The "General Tariff" applies to all importations excepting :—

- (a) Goods the produce or manufacture of the United Kingdom, shipped in the United Kingdom ;
- (b) Goods the produce or manufacture of the following countries when admissible under the British Preferential Tariff or at a special rate of duty : Canada, New Zealand, Norfolk Island, Papua and New Guinea, and British non-self-governing Colonies, British Protectorates and certain Territories governed under British mandate.
- (c) Goods admitted under the provisions of the Intermediate Tariff.

The Customs Tariff 1933-1939 provides for duties on certain goods to be deferred. Where a deferred duty on any goods is provided in the Schedule, the Minister shall refer to the Tariff Board for inquiry and report on the question whether the deferred duty should or should not operate on and after the date to which it has been deferred. The Board shall report whether the goods in respect of which the deferred duty is provided are being made or produced in Australia or will be so made or produced on, or immediately after, the date to which the duty has been deferred—(a) in reasonable quantities ; (b) of satisfactory quality ; and (c) at a reasonable price having regard, among other things, to the probable economic effect of the imposition of the deferred duty upon other industries concerned, and upon the community in general. Upon receipt of a report from the Tariff Board, the Minister may defer the duty further by notice published in the *Commonwealth Government Gazette*.

In pursuance of the trade diversion policy of the Commonwealth Government (see par. 5 of this section), an amendment of the Customs (Prohibited Imports) Regulations of 22nd May, 1936—Item 21—prohibited the import into Australia, except under special licence, of 84 classified groups of goods produced or manufactured in foreign countries. A list of the principal items affected is published in Official Year Book No. 30. Important modifications of the licensing system as applied to the 84 groups of goods referred to were announced on 7th December, 1937, by the Minister for Trade and Customs, who stated that in respect of goods not competitive with Australian industry, licences for importation would be granted irrespective of the country of origin. In respect of goods competitive with Australian industry the licensing system then in force* would operate until duties adequate to the protection of the industries concerned had been determined. Tariff Schedules amending duties to give adequate protection to Australian industries established or extended during the currency of the licensing system were embodied in Customs and Excise Resolutions submitted to Parliament on 4th May, 1938, and the licensing restrictions ceased to have force from that date. The Acting Minister for Trade and Customs explained that the Schedules should be regarded as of a temporary nature until the industries could be inquired into and reported on by the Tariff Board.

Under Item 22 the import is prohibited, except under special licence, of motor vehicle chassis produced or manufactured in any country except the United Kingdom. Imports of chassis from the principal suppliers other than the United Kingdom are restricted to the same level of imports as for the twelve months ended 30th April, 1936.

From the same date, 22nd May, 1936, customs duties were increased on imports of certain items of cotton, artificial silk and silk piece goods and on motor chassis. The duties imposed on cotton and artificial silk piece goods were reduced as from 1st January, 1937.

3. **Preferential Tariff.**—(i) *British Preference.* The Commonwealth Tariff 1908 provided Preferential Tariff rates in favour of specified goods produced or manufactured in the United Kingdom. Subsequent legislation has extended the list of articles to which these rates apply. For the purpose of preferential treatment the following goods are deemed by Section 151A of the Customs Act 1901-1936 to be the produce or manufacture of the United Kingdom provided the final process of their production or manufacture was performed in that country.

- (a) Goods which are wholly produced or wholly manufactured in the United Kingdom from materials in one or more of the following classes—
- (i) Materials wholly produced or wholly manufactured in the United Kingdom or in Australia;
 - (ii) Imported unmanufactured raw materials;
 - (iii) Imported manufactured raw materials as determined by the Minister.
- (b) Goods of the factory or works cost of which not less than seventy-five per cent. is represented—
- (i) by labour or material of the United Kingdom; or
 - (ii) by labour or material of the United Kingdom and labour or material of Australia.
- (c) Goods of a class or kind not commercially produced or manufactured in Australia and of the factory or works cost of which not less than twenty-five per cent. or fifty per cent. if the Minister so determines is represented—
- (i) by labour or material of the United Kingdom; or
 - (ii) by labour or material of the United Kingdom and labour or material of Australia.

The benefits of the British Preferential Tariff have also been extended by separate Trade Agreements to certain goods the produce of the Dominions of Canada and New Zealand and by separate Tariff legislation to Newfoundland, Southern Rhodesia and to the Territories of Papua and New Guinea.

At the Imperial Economic Conference held at Ottawa, Canada, during July and August, 1932, a trade agreement providing increased preference was made between the Government of the United Kingdom and the Government of the Commonwealth of Australia. The Tariff proposals embodying the terms of the trade agreement came into operation on 14th October, 1932. An Act entitled the United Kingdom and Australia Trade Agreement Act 1932 approved the provisions of the trade agreement arising out of the Conference at Ottawa. Briefly stated, the Commonwealth Government agreed (a) to invite Parliament to pass legislation making the tariff changes necessary to give effect to the preference formula set forth in the agreement; (b) that protection by tariffs shall be afforded only to those industries which are reasonably assured of sound opportunities for success; (c) that during the currency of the agreement the tariff shall be based on the principle that protective duties shall not exceed such a level as will give United Kingdom producers full opportunity of reasonable competition on the basis of the relative cost of economic and efficient production, provided that in the application of such principle special consideration may be given to the case of industries not fully established; (d) that the Australian Tariff Board review existing protective duties in accordance with the foregoing principles, and after the receipt of the report of the Board the Parliament shall be invited to vary, wherever necessary, the tariff on goods of United Kingdom origin in such manner as to give effect to such principles; (e) that no new protective duty shall be imposed and no existing duty shall be increased on United Kingdom goods to an amount in excess of the recommendation of the Tariff tribunal; (f) that United Kingdom producers shall be entitled to full rights of audience before the Tariff Board when it has under consideration the above-mentioned matters; (g) that, in so far as concerns goods the produce or manufacture of the United Kingdom, the Commonwealth Government undertake to (i) repeal the proclamation prohibiting the importation of certain goods; (ii) remove as soon as practicable the surcharges imposed by resolution introduced into the Parliament of Australia on 24th May, 1932; and (iii) to reduce or remove primage duty as soon as the finances of Australia will allow. Subject to the necessary legislative or other action being taken the agreement was to operate from 20th August, 1932, and remain in force for five years and if not denounced six months before the end of that period to continue in force until a date six months after notice of denunciation had been given by either party.

The prohibitions and surcharges referred to in this agreement were subsequently abolished and primage duty on a large number of items removed or reduced. The concessions granted by the Government of the United Kingdom under the terms of the Ottawa trade agreement on goods of Australian origin are set out briefly in par. 13 of this section. Further reference to this trade agreement appears in the Appendix to Official Year Book No. 26, 1933.

The five years currency of the agreement terminated on 19th August, 1937, but in view of the negotiations then in progress between the Governments of United Kingdom and United States of America for a trade agreement, a review of the terms of the Ottawa Agreement became a matter of urgency. The United Kingdom Government at the time sought the concurrence of the Dominions in the modification of certain preferences granted under the Ottawa Agreements in order to facilitate the satisfactory conclusion of the agreement. As a consequence thereof a conference of United Kingdom and Australian Ministers was held in London early in 1938. A joint statement setting out the result of the conference was issued by the two Governments in the form of a Memorandum of Conclusions which was published by the United Kingdom Government on 20th July, 1938.

The Memorandum stresses the interdependence of the two countries in the matters of trade and defence. The United Kingdom is recognized as a great force for the maintenance of peace, and Australia is regarded as an important field for United Kingdom investment.

Both the United Kingdom and Australia have certain problems and requirements existing which each not only admits but is prepared to treat as the basis for trade relationships between the two countries. It is regarded as essential in the interests of both countries that Australia should increase its population and this can best be done by the progressive development of her secondary industries. This policy, however, conflicts with the position of the United Kingdom as a great oversea trader and exporter of manufactured goods to Empire and foreign countries and any diminution in the exports of United Kingdom will affect the capacity of that country to absorb foodstuffs and raw materials from countries like Australia.

While strongly adhering to the principle of preferential trade within the Empire the representatives of both countries realized that it was desirable that each country should from time to time enter into trade agreements with foreign countries in order to make an effective contribution to the expansion of international trade. The Ministers agreed to co-operate in every practical way.

Difficulties immediately arise when an attempt is made to reconcile the expansion of the secondary industries of Australia with the endeavour of the United Kingdom to maintain her existing trade in Australian markets. In the Ottawa Agreement, Articles 9 to 13 were framed to meet this difficulty but the results were not entirely satisfactory. It was found impracticable to revise the Articles to satisfy the requirements of both countries, and their substitution by a schedule of maximum rates of duty was suggested. This principle of making trade treaties on the basis of fixing rates of duty is common in most international arrangements but it was thought that special difficulties might arise in applying it to a young and developing country like Australia which also has a system of wage-fixing tribunals and fluctuations of industrial costs. The Australian Ministers agreed to investigate the possibility of adopting such a system after determining the possible course of development of secondary industries in Australia during the next few years.

In making the inquiry the Commonwealth Government proposes to have regard to *inter alia* such important factors as—

- (a) the necessity for increased Australian population ;
- (b) the economics and future growth of primary production in Australia ;
- (c) the necessity on national and economic grounds for a continued development of Australian secondary industries ;
- (d) the defence needs of Australia ;

- (e) the maintenance of United Kingdom—Australian trade by effective preference to United Kingdom in Australia and to Australia in the United Kingdom; and
- (f) the need for new markets for Australian exports and for foreign trade arrangements.

The present agreement will continue in force pending the decision of the Australian Government on this matter, and in the meantime the United Kingdom Ministers will not press their objection to interpretations now placed by the Australian Tariff Board upon Article 10, while the Australian Ministers have undertaken to make every effort to ensure that the Tariff Board's recommendations under Article 11 are made effective.

In conclusion, the memorandum refers to considerable discussions between Ministers with regard to the marketing of primary produce in the United Kingdom. It was recognized that United Kingdom agriculture was entitled to first consideration in the home market, but that Empire products should be granted second consideration. It was felt that, in the present state of trade, the interests of all parties could best be served by means of orderly marketing secured by collective action on the part of Empire producers' organizations in co-operation with corresponding bodies in other countries in respect of particular commodities. A similar method has already been adopted in regard to beef by the creation of the Empire Beef Council and the International Beef Conference, and in the opinion of the Ministers great benefit to both home and Dominion producers can be secured by co-operation of this character in relation to other commodities.

On the basis of the imports during 1913 the preferential provisions of the Tariff of 1908-1911 covered 65 per cent. of the imports of merchandise of United Kingdom origin, the margin of preference being equal to 5 per cent. of the value of the goods. On the basis of the imports during 1939-40 the Customs Tariff 1933-1939 extended the application of the Preferential Tariff rates to 86 per cent. of the imports from the United Kingdom, and at the same time increased the margin of preference to 19 per cent. ad valorem. These percentages relate to all imports on which preference was granted, whether dutiable or free under the preferential provisions. With regard to imports on which preference was granted and which were dutiable under both the Preferential and General Tariffs, the average equivalent ad valorem rate of duty paid in 1939-40 under the Customs Tariff 1933-1939 on goods of United Kingdom origin was about 15.3 per cent., whereas the same goods under the General Tariff rates would have been called upon to pay an average rate of about 39.5 per cent.

An application of the Customs Tariff 1933-1939 to the total imports of £A56,858,624 (including outside packages) from the United Kingdom entered for home consumption during 1939-40 shows that the value of the goods of United Kingdom origin which participated in the preferential provisions of the Tariff was £A47,668,186, upon which duty to the amount of £A4,217,357 was collected. Under the General Tariff the same goods would have paid £A13,406,659 duty or £A9,189,302 more than was paid at preferential rates, representing an additional duty of 19.3 per cent. on the value of the goods. It would be improper, however, to speak of this sum as the "value" of preference to the United Kingdom as some of the preferential goods would have come from the United Kingdom without preference. The principal classes which benefited under the Preferential Tariff and the additional duty that would have been collected under the General Tariff during 1939-40 were textiles, £3,510,802; metals and metal manufactures, £2,178,069; machines and machinery, £1,125,781; spirituous and alcoholic liquors, £109,091; drugs, chemicals, etc., £430,736; earthenware, glass, etc., £345,085; apparel, £208,058; paper, £241,044; manufactured fibres, £228,006; stationery and paper manufactures, £101,547; jewellery and fancy goods, £88,161; and optical, surgical and scientific instruments, £124,234.

The margin of preference granted by the preferential tariff has been increased to some extent by the operation of the Customs Tariff (Exchange Adjustment) Act 1933-1939. The total amount deducted cannot be stated owing to the fact that since the end of 1934 "net" rates of duty (after making allowance for exchange adjustment) recommended by the Tariff Board have been applicable.

The value of goods from countries other than the United Kingdom which were adversely affected by the preferential provisions of the Tariff amounted to £23,091,366 and the duty collected thereon was £A6,427,163 or £A3,925,027 more than would have been paid under the British Preferential Tariff Rates.

The following table shows the effect of the Preferential provisions of the Customs Tariff on imports of goods affected favorably or adversely by the British Preferential Tariff during the years 1937-38 to 1939-40:—

EFFECT OF THE PREFERENTIAL PROVISIONS OF THE CUSTOMS TARIFF.

IMPORTS OF GOODS AFFECTED FAVORABLY OR ADVERSELY BY THE BRITISH PREFERENTIAL TARIFF.

Particulars.	United Kingdom.			Other Countries.(a)		
	1937-38.	1938-39.	1939-40.	1937-38.	1938-39.	1939-40.
GOODS OF A KIND WHICH WERE "FREE", IF FROM UNITED KINGDOM.						
Value of goods cleared for consumption £A.	25,040,517	19,095,649	20,157,570	12,983,535	10,530,878	9,810,413
Amount of Duty collected thereon £A.	..	..	..	1,600,664	1,415,247	1,265,333
Average ad valorem rate of Duty collected .. .. %	..	..	..	12.3	13.4	12.9
Duty which would have been collected under General Tariff rates .. £A.	3,213,203	2,474,807	2,550,415	..	..	..
Average ad valorem rate of Duty which would have been collected under General Tariff rates .. %	12.8	13.0	12.7	..	..	..
GOODS OF A KIND WHICH WERE "DUTIABLE", IF FROM UNITED KINGDOM.						
Value of goods cleared for consumption £A.	28,058,500	24,586,678	27,510,616	14,253,772	12,305,081	13,280,953
Amount of Duty collected thereon £A.	4,312,158b	3,916,726b	4,217,357b	5,753,250	4,988,493	5,161,630
Average ad valorem rate of Duty collected %	15.4	15.9	15.4	40.4	40.5	38.8
Duty which would have been collected on United Kingdom goods under General Tariff rates .. £A.	11,195,361	10,012,544	10,856,244	..	..	..
Average ad valorem rate of Duty which would have been collected under General Tariff rates .. %	39.9	40.7	39.5	..	..	..
Duty which would have been collected on goods of Other Countries under British Preferential Tariff £A.	..	..	..	2,358,432b	2,086,998b	2,502,136b
Average ad valorem rate of Duty which would have been collected under British Preferential Tariff .. %	..	..	..	16.6	16.9	18.8
Amount of Rebate on United Kingdom goods as against General Tariff rates £A.	6,883,203b	6,095,818b	6,638,887b	..	..	..
Average ad valorem rate of Rebate on United Kingdom goods %	24.5	24.8	24.1	..	..	..
Amount of Surcharge on goods from Other Countries as against British Preferential Tariff rates £A.	..	..	..	3,394,818b	2,901,495b	2,659,494b
Average ad valorem rate of Surcharge on goods of Other Countries .. .. %	..	..	..	23.8	23.6	20.0

(a) Goods cleared under "General Tariff." (b) In computing this amount, account has been taken of the effect of the Exchange Adjustment Act on the margin of British Preference.

EFFECT OF THE PREFERENTIAL PROVISIONS OF THE CUSTOMS
TARIFF—*continued.*

Particulars.	United Kingdom.			Other Countries.(a).		
	1937-38.	1938-39.	1939-40.	1937-38.	1938-39.	1939-40.
Value of goods cleared for consumption £A.	53,099,017	43,682,327	47,668,186	27,237,307	22,835,959	23,091,366
Amount of Duty collected thereon £A.	4,312,158b	3,916,726b	4,217,357b	7,353,914	6,403,740	6,427,163
Average ad valorem rate of Duty collected %	8.1	9.0	8.8	27.0	28.0	27.8
Duty which would have been collected on United Kingdom goods under General Tariff rates .. £A.	14,408,564	12,487,351	13,406,659	..	..	..
Average ad valorem rate of Duty which would have been collected under General Tariff rates .. %	27.1	28.6	28.1	..	..	..
Duty which would have been collected on goods of Other Countries under British Preferential Tariff .. £A.	..	..	..	2,358,432b	2,086,998b	2,502,136b
Average ad valorem rate of Duty which would have been collected under British Preferential Tariff .. %	..	..	..	8.7	9.1	10.8
Amount of Rebate on United Kingdom goods as against General Tariff rates £A.	10,096,406b	8,570,625b	9,189,302b	..	..	..
Average ad valorem rate of Rebate on United Kingdom goods %	19.0	19.6	19.3	..	..	..
Amount of Surcharge on goods from other Countries as against British Preferential rates .. £A.	..	..	..	4,995,482b	4,316,742b	3,925,027b
Average ad valorem rate of Surcharge on goods of Other Countries .. .. %	..	..	..	18.3	18.9	17.0

(a) Goods cleared under "General Tariff." (b) In computing this amount, account has been taken of the effect of the Exchange Adjustment Act on the margin of British Preference.

(ii) *Intermediate Tariff Preference.* The Intermediate Tariff came into operation on 1st January, 1937, and during the year ended 30th June, 1940, was applicable wholly or in part to about 140 tariff items. In the period mentioned goods from "Proclaimed Countries" (i.e. foreign countries entitled to most-favoured-nation treatment) cleared at intermediate rates of duty were valued at £A7,349,895 on which £A2,128,775 duty was collected. Under the General Tariff the same goods would have paid £A3,806,054 duty or £A1,677,279 more than was paid at intermediate rates, representing an additional duty of 22.8 per cent. on the value of the goods. At British preferential rates of duty the same goods would have paid £A831,807 or £A1,296,968 less than was paid at intermediate rates, a reduction equivalent to an ad valorem duty of 17.7 per cent.

(iii) *Exchange Adjustment.* The Customs Tariff (Exchange Adjustment) Act 1933-1939 provides for adjustments in Duties of Customs consequent upon depreciation in the value of Australian currency in relation to the currencies of countries, to goods of which the British Preferential Tariff applies. This Act came into operation on 5th October, 1933, but subsequent amendments have extended the list of items affected. The application of Section 5 of the Act is explained hereunder :—

The deduction to be made from duty in respect of protected goods (covered by items) specified in the schedule to the Act and admissible under the British Preferential Tariff

on account of the depreciation of Australian currency in relation to the currency of the British country exporting the protected goods to Australia will depend on:—

- (a) Whether the extent of depreciation is not less than $16\frac{2}{3}$ per cent.; or
- (b) Whether the extent of depreciation is not less than $11\frac{1}{9}$ per cent., and less than $16\frac{2}{3}$ per cent.

If (a) applies, the deduction from the amount of duty will be—(i) one-fourth of the amount of duty; or (ii) $12\frac{1}{2}$ per cent. ($\frac{1}{8}$) of the value for duty, whichever is the less:

If (b) applies, the deduction will be (i) one-eighth of the amount of duty; or (ii) $6\frac{1}{4}$ per cent. of the value for duty, whichever is the less. The telegraphic transfer (buying) rate shall determine the extent of depreciation of Australian currency.

Prior to 1933–34 the Tariff Board had recommended rates of duty as though exchange was at par, but early in the year mentioned the Board decided to change the basis of its recommendations and has since shown its findings under the following headings:—

- (a) The rates which would prove reasonable and adequate under existing conditions of exchange.
- (b) An estimate as closely as can be made of the rates which would be reasonable and adequate if exchange suddenly reverted to par.
- (c) The scale of adjustment necessary to meet conditions of exchange between parity and the present adverse rate of 25 per cent.

In tariff proposals introduced on 6th December, 1934, and later, the new basis has been adopted in fixing rates of duty on certain items in accordance with the Board's recommendations as set out in (a) with provision for the adjustment of rates of duty as set out in (c). With respect to such items the deductions under the provisions of the Exchange Adjustment Act will cease to apply.

(iv) *Papua and New Guinea Preference.* The Customs Tariff (Papua and New Guinea Preference) Act 1936 which repealed the Act of 1934 provides for Customs Preference on goods the produce of Papua and on goods the produce of the Territory of New Guinea. Imports into Australia direct from the Territory of Papua or the Territory of New Guinea, of such of the goods specified in the schedule to the Act as were produced in the Territory from which they were imported, shall, notwithstanding anything contained in the Customs Tariff 1933–1939, be free of duty. The goods specified in the schedule to the Customs Tariff (Papua and New Guinea Preference) 1936 are coffee, dried lychee fruit, various native fresh fruits, edible fungi, green and dry ginger, coco-nuts, Rangoon beans, kapok and sesame seeds, areca nuts, cocoa beans, massoi oil, nuts (edible), sago, tapioca, spices, vanilla beans and gums. Total imports from Papua during 1939–40 amounted to £A577,442 (including gold, £A109,551), imports of goods entitled to preference to £A73,086, and duties remitted to £A50,134. Total imports from the Territory of New Guinea during 1939–40 amounted to £A3,088,699 (including gold £A2,848,582), imports of goods entitled to preference to £A105,206, and the duties remitted to £A54,770.

4. *Reciprocal Tariffs.*—(i) *General.* The Customs Tariff of 1921 provided a new feature in Australian Tariffs in the form of an intermediate tariff which was omitted from Customs Tariff 1933 but restored in the Customs Tariff 1936. The purpose of the intermediate tariff is referred to in par. 2 above.

The trade agreement signed at the Imperial Economic Conference, 1932, held at Ottawa, Canada, on behalf of the Government of the United Kingdom and of the Government of the Commonwealth of Australia materially altered the existing conditions of preference. The agreement provides special preferential trade conditions between the Commonwealth of Australia and the United Kingdom and certain of its dependencies. Customs Tariff 1933 embodied the main provisions of the Ottawa Agreement and imposed duties of customs under two headings—British Preferential Tariff and General Tariff. No provision was made for an Intermediate Tariff in the above-mentioned Act. The terms of the agreement conceded by the Commonwealth Government are briefly stated in par. 3 above and the concessions granted by the Government of the United Kingdom on goods of Australian origin are set out below in par. 13 of this chapter. A review of the trade agreement appears in the Appendix to Official Year Book No. 26.

(ii) *Dominion of Canada.* A reciprocal trade agreement between Canada and Australia which came into force on 1st October, 1925, was superseded by the Customs Tariff (Canadian Preference) Acts of 1931 and 1934-1939, which reaffirmed the principle of granting of preferences for the mutual advantage of the two countries and extended preferential conditions. The commodities on which Canada grants preferential rates of duty to Australia are: Butter, brandy, champagne, cheese, currants, eggs, eucalyptus oil, fresh apricots, pears, quinces, nectarines, grapes, oranges and passion fruit, dried prunes, apricots, nectarines, pears and peaches, fruit pulp, fruits in cans, gelatine, hops, rice (uncleaned), meat (fresh and canned), peanuts, raisins, sugar, tallow, veneers and wine. Australia's preferential duties apply to the following Canadian imports:—Carbide of calcium, cash registers, corsets, fish, gloves, goloshes and rubber sand boots, etc., piece goods, iron and steel tubes or pipes, printing machinery, barbed wire, paper (printing, typewriting and writing), timber, typewriters, vacuum cleaners and vehicles—motor chassis (unassembled and assembled)—and vehicle parts but not including bodies, gears, rubber tyres and tubes, storage batteries, shock absorbers, bumper bars, sparking plugs and springs.

During 1939-40 the imports from Canada amounted in Australian currency to £A11,393,568 and imports of Canadian origin entitled to preference were valued at £A9,984,914, the principal items being printing paper, £A1,946,849; motor chassis and parts, £A1,878,301; timber, £A986,221; fish, £A531,590; and piece goods, £A429,786. The duty on the total imports of Canadian origin entitled to preference would have been £A3,197,086 under the General Tariff, but by the preferential provisions this was reduced by £A1,913,696, or by 19.2 per cent. on the value of the imports concerned.

Australian exports to Canada subject to preference amounted to approximately £A1,967,411, the items being fruits, dried, £A571,259; sugar, £A1,229,687; fruits, preserved, £A104,980; and tallow, £A61,485.

(iii) *Dominion of New Zealand.* The Customs Tariff (New Zealand Preference) Act 1933, which came into force on 1st December, 1933, repealed earlier Acts and provides that duties on all goods specified in the schedule to the Act shall be at the rates indicated therein, and that all goods other than those provided for in the schedule shall be subject to the rates in force under the British Preferential Tariff. An amendment to this Act in 1934 provides that, where the rate of duty upon any class of goods under the New Zealand British Preferential Tariff is less than that operating in Australia under the British Preferential rate, upon request by the New Zealand Government, such goods may, after proclamation, be admitted at the lower rate. The rates of duty on goods re-exported from New Zealand (not being goods the produce or manufacture of New Zealand) and which are imported into Australia, and upon which if they had been imported into Australia direct from the country of origin would have been subject to the rates of duty under the British Preferential Tariff, shall be the rates of duty in force under that tariff.

The Act provides also that films produced in New Zealand by or for the Government of New Zealand for publicity purposes shall be admitted free of duty, also that cocoa beans the produce of Western Samoa shall not be subject to any higher duties than those paid on cocoa beans the produce of any British non-self-governing Colony or Protectorate or any Territory under British mandate. Nothing in the Act shall apply to goods being the produce of Cook Islands.

Goods the produce or manufacture of the Dominion of New Zealand are exempt from primage duty.

The conditions of preference in the Act provide that goods shall be deemed to be the produce or manufacture of New Zealand if they conform to the laws and regulations in force in Australia which apply to such goods when imported under the British Preferential Tariff (*vide* section 151A of Customs Act 1901-1936) except that goods not wholly produced or manufactured in New Zealand need not contain more than 50 per cent. of New Zealand labour and/or material in their factory or works cost, instead of 75 per cent. under the conditions of the United Kingdom preference.

Of the total imports of £A1,823,336 from New Zealand during 1939-40 it is estimated that goods otherwise dutiable amounting in value to £A465,450 were admitted free under the provisions of the Preferential Tariff and the duty thus remitted was £A169,368.

In addition, goods valued at £A49,217 were admitted under the preferential rates of duty, the duty remitted on such goods being £A10,291. The total of the duties remitted on the import of New Zealand goods was thus £A179,659, representing a margin of preference of 34.9 per cent. on the value of the goods entitled to preference. The principal items which benefited under the preferential provisions were fish, valued at £A115,482, and undressed timber, £A170,463, the amounts of duty remitted being £A22,782 and £A117,601 respectively.

(iv) *Newfoundland.* The Customs Tariff (Newfoundland) Preference Act 1939 which came into operation on 12th December, 1939, provided for imports of newsprinting paper the produce or manufacture of Newfoundland to be accorded the benefits of the British Preferential Tariff, and in return the Government of Newfoundland accorded exclusive Tariff preference to Australian butter and canned fruits imported into that country.

(v) *Southern Rhodesia.* The Customs Tariff (Southern Rhodesian Preference) Act 1941, which came into operation on 9th April, 1941, provided for the imports of tobacco, unmanufactured, the produce of Southern Rhodesia, to be accorded the British Preferential Tariff rates less ninepence per pound.

(vi) *Union of South Africa.* A new trade agreement, which took effect from 1st July, 1935, provides that the products of the Union of South Africa or the mandated territory of South-West Africa entering Australia and the products of Australia entering the Union of South Africa or the mandated territory of South-West Africa shall be subject to customs duties not higher than those imposed by the importing country on like products from the most favoured foreign nation. A reciprocal tariff arrangement under which products of Mozambique are admitted duty free to the Union of South Africa is exempt from the agreement.

5. *Australian Trade Diversion.*—On 22nd May, 1936, the Minister directing negotiations for Trade Treaties announced in the House of Representatives the decision of the Government to divert portion of Australia's import trade, with the object of increasing exports of primary produce, expanding secondary industry, and bringing about an increase of rural and industrial employment.

Briefly summarized, the Minister's statement indicated that certain imports would be restricted with a view to their manufacture in Australia, including motor chassis, which, it was hoped, would be made in Australia on a large scale within a few years. In the case of certain other imports it was intended to change the present sources of supply to other countries which were great customers of Australia and which it was expected would become greater customers if Australia increased her purchases from them. The Government would proceed in two ways, firstly, by the adoption of a special licensing system over a limited range of imports and, secondly, by the imposition of higher duties where this course appeared more desirable. With the exception of motor chassis all goods of British origin would be exempt from the licensing system. In the case of motor chassis imports of United Kingdom origin only would be exempt from restriction. Upon application licences would be freely granted to countries with which Australia had a favourable balance of trade and to all other countries in regard to which, although the balance might be adverse to the Commonwealth, the Government was satisfied with the position.

The special licensing system was introduced on 23rd May, 1936, in the form of an amendment to the Customs (Prohibited Imports) Regulations which prohibited the import, except under special licence, of 84 classified groups of goods from foreign countries. On 7th December, 1937, the Minister for Trade and Customs announced important modifications of the licensing system and the intention to substitute adequate duties to protect Australian industries established or extended under the licensing system. These duties were imposed by Customs and Excise Resolutions of 4th May, 1938, and all licensing restrictions on the 84 groups of goods were removed from that date. Other references to this subject and to restrictions imposed on the import of motor chassis will be found in par. 2 above.

6. **Trade Agreements.**—(i) *General.* Trade agreements between the Commonwealth of Australia and the Governments of Belgium, Czechoslovakia, France, Japan and Switzerland were in operation prior to the outbreak of war in September, 1939, but were inoperative during the war, owing to the provisions of the Trading with the Enemy Act 1939-1940. The full text of these agreements is shown in previous issues of the Official Year Book.

(ii) *Brazil.* A trade agreement concluded between the Governments of Brazil and the Commonwealth of Australia came into operation on 1st January, 1940. Briefly, the agreement provided :—

- (a) Imports from Brazil would receive treatment not less favorable than that accorded to articles the produce or manufacture of any other foreign country.
- (b) Imports from Australia would receive similar treatment.

Exceptions were made in regard to preferences or privileges granted for special reasons to particular countries.

7. **Australian-United States of America Trade Relations.**—The trade diversion policy of the Commonwealth Government as expressed by the prohibition, except under special licence, of specified imports as from 23rd May, 1936, adversely affected a wide range of goods from the United States of America, which for a number of years had enjoyed an extremely favourable trade balance with Australia. In reply to this action the United States Government withdrew, as from 1st August, 1936, the most-favoured-nation treatment hitherto accorded to Australian goods including certain trade benefits extended to Australia equally with a number of countries with which the United States had concluded trade agreements. A further step bearing on the trade relations between the two countries was the extension by the Commonwealth Government to "Proclaimed Countries" as from 1st January, 1937, of intermediate customs tariff rates and certain primage duty concessions. The list of "Proclaimed Countries" includes the United Kingdom, the Dominions and Colonies, and the principal foreign countries. The principal exception was the United States of America which was not included until 18th February, 1943.

The alteration in the system of import licensing restrictions, which had been in operation since 23rd May, 1936, and the substitution of increased rates of duty where such were considered necessary to provide adequate protection for Australian industries, resulted in the restoration, from 1st February, 1938, of the accord to Australian goods of most-favoured-nation treatment by the United States Government.

As a result of the passing of the Lend-Lease Act in the United States of America the Australian Government took action to obtain from the United States of America, under the provisions of this Act, essential goods which were not available in sufficient quantities in this country or from the United Kingdom. (See § 3. Lend-Lease and Mutual Aid.)

On the outbreak of war with Japan, large quantities of war materials, raw products for the manufacture of munitions and other goods in short supply were made available to Australia under this Act. In recognition of the great material assistance received from the United States of America, the Australian Government, of its own volition, decided to accord to the United States of America the benefits of most-favoured-foreign-nation treatment. To implement this decision proclamations were made on 17th February, 1943, to include the United States of America in the list of "Proclaimed Countries" and to accord to that country intermediate Customs Tariff rates and primage duty concessions.

8. **Primage Duty.**—From 10th July, 1930, a primage duty of 2½ per cent. ad valorem was imposed on all goods whether dutiable or not dutiable, in addition to the duties collected in accordance with the Customs Tariff 1921-1930, excepting bullion, specie, radium and certain special governmental and other imports. The rate of primage duty was subsequently increased to 4 per cent. as from 6th November, 1930.

A proclamation of 14th May, 1931, exempted certain aids to primary production, and on 11th July, 1931, a further amendment, in addition to extending the list of these goods and also exempting some minor imports from primage duty,

provided for a rate of 4 per cent. ad valorem on a few other items, mainly aids to production, and increased the ad valorem rate of primage duty to 10 per cent. on all other articles imported. Amendments promulgated since 11th July, 1931, have greatly increased the list of goods exempt from primage duty.

The Customs Tariff (Primage Duties) Act 1934 imposed primage duty at rates of 4, 5, and 10 per cent. and provided for preferential treatment of certain goods admitted under the British Preferential Tariff. A proclamation of 12th December, 1934, exempted from primage duty goods the produce or manufacture of Fiji and a proclamation of 25th September, 1935, exempted from primage duty goods the produce or manufacture of the Territories of New Guinea and Papua. Under the Customs Tariff (New Zealand Preference) Act goods the produce or manufacture of New Zealand are exempt from primage duty. Similarly under the Norfolk Island Act 1913 goods the produce or manufacture of Norfolk Island are exempt from primage duty.

Customs proclamations, which came into force on 1st January, 1937 and later dates, provide in respect of specified tariff items, exemptions from, and reduced rates of 4 and 5 per cent. primage duty on, imports the produce or manufacture of "Proclaimed Countries". All countries whose goods are admissible to Australia under the intermediate customs tariff rank as proclaimed countries and include the United Kingdom, the Dominions and Colonies, the United States of America (from 18th February, 1943), and most foreign countries.

In 1939-40 the value of goods from the United Kingdom admitted under British Preferential Tariff rates was, in Australian currency, £A47,668,186 and the primage duty paid, £A1,267,431. This amount is £A1,358,275 less than the amount which would have been paid if certain goods had not been subject to preferential rates of primage duty.

9. Customs (Import Licensing) Regulations.—The Customs (Import Licensing) Regulations, which were promulgated on 1st December, 1939, were originally applied only to imports from countries outside the sterling area. The primary object was to eliminate non-essential items from Australia's import trade with non-sterling countries in order to conserve foreign exchange.

Some items were placed on the totally prohibited list while others were limited to a percentage of either the value or quantity of imports in the pre-war year 1938-39. Certain classes of goods, such as machinery, which could not be conveniently rationed on a quota basis, were placed "under administrative control", each application being dealt with on its merits without reference to past importations.

The restrictions applied to the importation of non-essential goods were progressively tightened after the regulations were first introduced and many more classes of goods were added to the list of items subject to "total prohibition" and "administrative control".

Since December, 1941, and consequent upon changes in the general war situation and the intensification of the Australian war effort, an increasing range of goods imported from the United Kingdom and other sterling countries was brought within the scope of the licensing regulations. The extension of the restrictions to sterling goods was a necessary corollary to the measures adopted in Australia and throughout the British Commonwealth to divert man-power, machinery and raw materials to war production. Conservation of shipping space was also an important consideration.

In recent months, in accordance with Government policy of relaxing restrictions where possible, a number of import restrictions, particularly on goods of sterling origin, have been removed or modified. The extensive housing programme, in particular, calls for the importation of a number of items such as furnishings, carpets and various earthenware products not available locally in sufficient quantities. These are among the items on which import restrictions have been modified but the full effects will not be felt until the supply situation in overseas countries becomes easier and until the shipping situation improves.

The greater part of Australia's essential war-time requirements from North America was obtained under Lend-Lease or Canadian Mutual Aid provisions. Licences are issued for commercial importations from this area when the goods are not eligible for supply under lend-lease or mutual aid except in special cases where circumstances make

it necessary to arrange cash purchases through Government channels (see § 3. Lend-Lease and Mutual Aid). The Customs (Import Licensing) Regulations are administered by the Import Licensing Branch of the Department of Trade and Customs.

10. **Export Control.**—(i) *General.* Powers for the normal measures of control or supervision over exports are conferred by section 112 (1) of the Customs Act and they provide for the prohibition of the exportation of arms, explosives and military and naval stores, and of any goods—

- (a) the exportation of which would be harmful to the Commonwealth ;
- (b) the prohibition of the exportation of which is necessary for the preservation of the flora or fauna of Australia ;
- (c) in order to preserve the standard and quality of Australian goods for export ;
- (d) the prohibition of the exportation of which is necessary for the protection of the revenue or the prevention of fraud or deception.

Action has been taken under these powers to prohibit the exportation of a large range of goods and these prohibitions apply at all times. They may be general or restricted and absolute or conditional.

Apart from these normal measures prohibitions and conditions were imposed on the exportation of goods for operation as special war-time measures, and these latter measures provided for both monetary and commodity controls which were as follows :—

(ii) *Monetary Control.* Part IIA. of the National Security (Exchange Control) Regulations superseded the Customs (Overseas Exchange) Regulations on 16th December, 1943, in the control of proceeds of exports. As was the case with the superseded regulations these new regulations were designed primarily to control the exportation of capital in the form of goods. They are complementary to the action taken under the other parts of the National Security (Exchange Control) Regulations to control the movement out of Australia of capital in the form of securities, gold and currency, and ensure—

- (a) that the overseas funds (i.e. foreign exchange) accruing from the exportation of goods are made available to the Australian banking system for national purposes through the Commonwealth Bank of Australia ; and
- (b) that payment for goods exported is made in a manner approved by the Commonwealth Bank of Australia.

Provision is made in the regulations for the grant of export licences subject to such terms and conditions as are imposed, and on the receipt in Australia by the Commonwealth Bank or by a Bank acting as agent for that Bank, of advice that the foreign currency has been paid to the Commonwealth Bank or to an agent of the Bank in respect of any goods exported in pursuance of a licence granted under the regulations, the Bank or agent of the Bank pays the licensee or such other person as is entitled to receive it an amount in Australian currency equivalent to the foreign currency received.

By proclamation (Customs Proclamation No. 590) promulgated under the Customs Act on 16th December, 1943, the exportation of any goods is prohibited unless a licence granted under the regulations to export the goods is in force or the goods are excepted from the application of the regulations.

In addition to commercial transactions, exports by private individuals are rigidly controlled and in the case of persons leaving Australia for overseas a restriction applies to the value of specified articles of jewellery and other effects of high intrinsic value which they are permitted to take with them. Their baggage is subject to the regulations and must be covered by export licences and, in the case of restricted goods, by export permits also.

(iii) *Commodity Control.* For various reasons, the principal of which were—

- (a) to conserve supplies of essential commodities for Australia's requirements ;
- (b) to implement price determinations ;
- (c) to control exports of goods which are the subject of Empire Marketing Agreements ;

- (d) to strengthen the control of the exportation of capital in the form of goods instituted by Part IIA. of the National Security (Exchange Control) Regulations;

a large range of commodities was prohibited from exportation (unless the consent of the Minister for Trade and Customs was first obtained) by proclamation promulgated under section 112 (IA.) of the Customs Act.

In cases where consent to exportation was given an export permit known as a restricted goods permit was issued. Consent was freely given for the exportation to British and Allied countries and to other approved destinations of goods under commodity control if they were available for export. In the case of exports to neutral countries special precautions, apart from any other control measures, were taken to ensure that the goods did not become contraband by re-exportation to enemy territory, and to prevent any possible trading with the enemy. These special precautions included consignee control and guarantees against re-export.

Some 1,000 kinds or classes of goods were proclaimed as prohibited exports under section 112 (IA.) of the Customs Act after the outbreak of war in 1939, but as the supply position improved in respect of any of the goods prohibited from export with the object of conserving supplies the prohibition was removed or relaxed.

11. **Special War Duty.**—This duty was imposed from 3rd May, 1940, as a war taxation measure. It comprises a tax of 10 per cent. on the Amount of Duties of Customs (which include Primage) on all goods (other than goods covered by Item 229 (c) in the Schedule to the Customs Tariff 1933–1939) entered for home consumption on and after the date mentioned. The tax is not regarded as having any relationship to the Duties of Customs in the ordinary acceptation of the term, but the amounts collected appear under the heading “Customs Collections” in Chapter XVIII. “Public Finance”.

12. **Industries Preservation.**—The Customs Tariff (Industries Preservation) Act 1921–1936 provides that after inquiry and report by the Tariff Board, special duties shall be collected in the following cases when the importation of the goods referred to might be detrimental to an Australian industry :—In the case of goods sold for export to Australia at a price less than the fair market price for home consumption or at a price which is less than a reasonable price, a special dumping duty shall be collected equal to the difference between the price at which the goods were sold and a fair market price. Similar provision is made for goods consigned to Australia for sale. With regard to goods exported to Australia at rates of freight less than the normal rate of freight the dumping freight duty shall be—on goods carried free—the amount payable as freight at the normal rate; and in the case of any other goods—an amount equal to the difference between the freight paid and the freight which would have been payable at the normal rate. Special duties are also imposed in the case of goods imported from countries whose currency is depreciated. Provision is also made for the protection of the trade of the United Kingdom in the Australian market from depreciated foreign currency.

The Act provides that the Minister for Trade and Customs, after inquiry and report by the Tariff Board, may publish a notice in the *Commonwealth Government Gazette* specifying the goods upon which special rates of duty under this Act shall be charged and collected. Several amendments of the Act were recommended by the Tariff Board and put into effect by the Customs Tariff (Industries Preservation) Act 1922. The Customs Tariff (Industries Preservation) Act 1933 repeals section 8 of Act 1921–1922 and provides new clauses relating to Exchange Special Duty.

13. **Preferential Tariff of the United Kingdom.**—(i) *General.* The Tariff of the United Kingdom provides Preferential Customs rates on certain goods where it is shown to the satisfaction of the Commissioners of Customs and Excise that such goods have been consigned from and grown, produced, or manufactured in the British Empire. Manufactured articles generally are not entitled to the preferential rates unless a specified percentage of their value is the result of labour within the British Empire. In the Budget submitted to the House of Commons during June, 1925, clauses dealing with increased Imperial preference on Empire-grown tobacco, preserved and dried fruits, jams and jellies, spirits, wine, sugar and hops were proposed and adopted. The new rates of duty took effect on 1st July, 1925, excepting that relating to hops, which came into operation on 16th August, 1925.

(ii) *Australian Preference.* The principal items of interest to Australia which are accorded preferential treatment under the Preferential Tariff of the United Kingdom are—Fruits, dried and preserved; jam; fruit pulp; preserved milk; wine and brandy. Conditions of preference to goods of Australian origin imported into the United Kingdom were revised in the trade agreement signed at the Ottawa Imperial Economic Conference. Increased preference was granted and the list of commodities entitled to preference was extended. This agreement provides for the continuance of the free entry of eggs, poultry, butter, cheese and other milk products the produce of Australia. Article 2 of the agreement provides for the imposition by the British Government of the following duties (specified in Schedule B) on foreign goods:—Wheat in grain, 2s. per quarter; (this duty was abolished as a result of the United Kingdom–United States of America trade agreement of 17th November, 1938. See sub-par. (iv) below); butter, 15s. per cwt.; cheese, 15 per cent. ad valorem; apples, raw, 4s. 6d. per cwt.; pears, raw, 4s. 6d. per cwt.; apples, canned, 3s. 6d. per cwt., in addition to duty in respect of sugar content; other canned fruits, 15 per cent. ad valorem, in addition to duty in respect of sugar content; dried fruits, previously dutiable at 7s., 10s. 6d. per cwt.; eggs in shell, (a) not exceeding 14 lb. per 120, 1s. per 120, (b) over 14 lb. but not exceeding 17 lb., 1s. 6d. per 120, (c) over 17 lb., 1s. 9d. per 120; condensed milk, whole, sweetened, 5s. per cwt., in addition to duty in respect of sugar content; condensed milk, whole, not sweetened, 6s. per cwt.; milk powder and other preserved milk, not sweetened, 6s. per cwt.; honey, 5s. per cwt.; copper, unwrought, whether refined or not, in ingots, bars, etc., 2d. per lb.; oranges, raw, 3s. 6d. per cwt. from 1st April to 30th November; grape fruit, raw, 5s. per cwt., from 1st April to 30th November, and grapes (other than hothouse) 1½d. per lb. from 1st February to 30th June. Schedule C provides that the margin of preference on wine not exceeding 27 degrees of proof spirit shall be 2s. per gallon.

The British Government undertakes that the general ad valorem duty of 10 per cent. imposed by Section 1 of the Import Duties Act 1932 on the following foreign goods shall not be reduced except with the consent of the Commonwealth Government:—Leather, tallow, canned meat, zinc, lead, barley, wheaten flour, macaroni, dried peas, dressed poultry, casein, eucalyptus oil, meat extracts and essences, copra, sugar of milk, sausage casings, wattle bark, asbestos and dried fruits other than currants.

The duties provided on foreign wheat in grain, copper, lead and zinc are conditional on Empire producers continuing to offer these commodities on first sale in the United Kingdom at prices not exceeding the world price.

During the calendar year 1939 merchandise of Australian origin imported into United Kingdom amounted to £61,984,000. Of this total approximately £32,031,426 represented goods which received preferential tariff treatment over similar goods from foreign countries. If these goods had been subject to the duties imposed on foreign goods it is estimated that they would have paid approximately £5,503,227 more in duty. This represents a rebate of approximately 17.2 per cent. on the value of imports receiving preferential treatment. The main items receiving preference and the amount of the rebates were—Beef, frozen, £3,199,164 (rebate, £573,032); other meats, £1,569,246 (rebate, £172,126); sugar, £4,449,788 (rebate, £1,327,862); wine, £605,562 (rebate, £538,012); rice, £200,036 (rebate, £69,809); butter, £11,090,254 (rebate, £1,480,090); cheese, £958,333 (rebate, £63,889); apples, £1,645,285 (rebate, £300,105); raisins, £736,129 (rebate, £108,517); fruits, tinned, or bottled, £1,184,455 (rebate £296,114); lead, unwrought, £2,741,429 (rebate, £65,027); leather, £426,894 (rebate, £128,068). The above figures for imports, valued in sterling, have been obtained from the *Annual Statement of the Trade of the United Kingdom* 1939, and the rebate granted has been estimated from rates of duty shown in the Import Duties Act 1932, Ottawa Agreements Act 1932 and the other enactments mentioned above.

The declaration by the British Government (Schedule H of the agreement) provides for the regulation of imports of foreign meat into the United Kingdom and undertakes that no restriction will be placed upon the importation of any meat from Australia during the period (January, 1933 to June, 1934) named in the "agreed programme" which is set out in Schedule H.

The views of the Government of the United Kingdom on the imports of meat into the United Kingdom were the subject of a paper presented to the House of Representatives in April, 1935. In a memorandum on "The Live Stock Situation" issued as a White Paper in July, 1934, the United Kingdom Government called attention to the very serious decline which had taken place in 1932, 1933 and the first half of 1934, in the prices of fat and store cattle on the United Kingdom market. The decline was attributed in the main to the disproportionate fall of agricultural prices as the result of the world depression and the effect on the meat industry of the expansion of oversea production which in some cases was stimulated by the payment of subsidies. The United Kingdom Government added that it was clearly impossible for that Government to acquiesce in a situation which threatened ruin to the United Kingdom live stock industry and explained that the choice lay between:—

- (a) a drastic reduction of imports to the point necessary to sustain prices of United Kingdom live stock at a remunerative figure; or
- (b) the introduction in agreement with oversea countries of a levy upon imports the proceeds of which would be available for the assistance of the home industry.

In the latter case, it was explained, the quantity of imports might either be left entirely free or subjected to such moderate regulation as might be thought necessary to prevent the market from breaking altogether. It was further pointed out that, without the consent of the countries concerned, no duty could be imposed on Dominion meat before August, 1937, or on Argentine meat before November, 1936. Failing agreement on the payment of a levy on meat imports the United Kingdom Government would have no alternative but to take steps to regulate, during the currency of existing agreements, the quantity of imports to whatever extent was necessary to restore live stock prices to a remunerative level. In summing up the position the United Kingdom Government stated its firm intention of safeguarding the position of the United Kingdom live stock industry.

The arrangements with the United Kingdom provide for importations of Australian meat to be regulated in accordance with the absorptive capacity of the United Kingdom market. Australian meat importations excluding canned meats into the United Kingdom during 1935 to 1943 as compared with the Ottawa agreement year (1931-32) have been as follows:—

Year.	Chilled Beef.	Frozen Beef and Veal.	Frozen Mutton and Lamb.	Pork.
	Cwt. '000.	Cwt. '000.	Cwt. '000.	Cwt. '000.
1931-32	Nil	1,124	1,488	Nil.
1935	228	1,468	1,784	147
1936	296	1,524	1,496	233
1937	452	1,948	1,883	234
1938	528	1,881	1,940	287
1939	430	1,952	1,657	315
1940 .. .. .	..	2,102	1,759	463
1941 .. .. .	..	996	1,701	631
1942 .. .. .	..	232	1,487	131
1943 .. .. .	..	95	1,855	13

From 1st October, 1939, the United Kingdom Government agreed to purchase a specified quantity of beef, mutton, lamb, veal, pork, and offals from Australia, and to use its best endeavours to lift additional quantities available for export. Particulars of the contracts appear in Chapter XXVIII. "Miscellaneous".

(iii) *United Kingdom-Argentina Trade Agreement.* In connexion with the supply of meat to the United Kingdom it will be of interest to compare the terms of the United Kingdom-Argentina Trade Agreement which took effect from 20th November, 1936. This

agreement provides for "minimum annual quantities" of Argentina meat to be imported into the United Kingdom as follows:—Chilled beef for year 1937 not less than the quantity imported in 1935 reduced by 138,700 cwt.; for each of the years 1938 and 1939 not less than the quantity permitted in the preceding year reduced by 138,700 cwt. provided that the 1939 quantity shall be not less than 6,590,000 cwt.; frozen beef 124,600 cwt., pork 186,800 cwt., and canned beef 605,600 cwt. annually; mutton and lamb for year 1937, 886,000 cwt. and for 1938, 797,400 cwt. In addition, customs duty has been imposed as follows:—Chilled beef $\frac{3}{4}$ d. per lb.; frozen beef $\frac{3}{4}$ d. per lb.; canned beef (excluding tongues) 20 per cent., and tongues 30 per cent. ad valorem; pork, mutton and lamb, free. If in any period Argentina is unable to supply the minimum quantities specified the United Kingdom Government may re-allocate the shortage among other countries. The agreement was to remain in force until 31st December, 1939, and thereafter until terminated by six months' notice.

(iv) *United Kingdom-United States of America Trade Agreement.* The trade agreement between the United Kingdom and the United States of America, signed on 17th November, 1938, was of much interest to Australia as a country dependent on reasonable access to overseas markets for the disposal of its large surplus of agricultural products. In particular, the Commonwealth derived an interest in the United Kingdom-United States Agreement from the fact that the concurrence of the Dominions and India was sought in the modification of certain preferences, accorded by the United Kingdom under the Ottawa Agreements of 1932, in order to facilitate the satisfactory conclusion of the negotiations. The extent of the alterations in preferences to which the Commonwealth agreed was limited to:—

- (a) the abolition of the duty on foreign wheat imported into the United Kingdom;
- (b) a reduction in the duty on fresh apples during the period 15th August to 15th April and on fresh pears during the period August to January; the full duty to be maintained during the remaining months when the Australian supplies are principally marketed; and
- (c) reductions in the duties on honey and on the following fruits preserved in syrup, namely, apples, grape fruit, fruit salad, pineapples and loganberries.

In co-operating with the United Kingdom to the extent indicated, the Commonwealth Government was actuated by the belief that the promotion of greater freedom in world trade as a result of the agreement between the United States and the United Kingdom would have an indirect but beneficial effect on the marketing of Australian export commodities.

14. Tariff Board.—The Tariff Board Act 1921-1934 provides for the appointment of a Tariff Board consisting of four members, one of whom shall be an administrative officer of the Department of Trade and Customs. This member may be appointed Chairman of the Board. Members of the Board are appointed for a term of not less than one year nor more than three years, and two members may be appointed as a Committee for making special inquiries. The purpose of the Tariff Board is to assist the Minister in the administration of matters relating to trade and customs. The more important matters which the Minister shall refer to the Board for inquiry and report include disputes arising out of the interpretation of any Customs or Excise Tariff; the necessity for new, increased or reduced duties; the necessity for granting bonuses; any proposal for the application of the British Preferential Tariff to any part of the British Dominions or any foreign country; and any complaint that a manufacturer is taking undue advantage of the protection afforded him by the tariff by charging unnecessarily high prices for his goods or acting in restraint of trade. The Minister may refer to the Board for inquiry and report the following matters:—the classification of goods under items of the Tariff that provide for admission under By-laws; the determination of the value of goods for duty; the general effect of the working of the Customs Tariff and the Excise Tariff; the fiscal and industrial effects of the Customs laws of the Commonwealth; the incidence between the rates of duty on raw materials and on finished or partly finished products; and any other matter affecting the encouragement of primary and secondary industries in relation to the Tariff.

Inquiries conducted by the Board relating to any revision of the Tariff, any proposal for a bounty, or any complaint that a manufacturer is taking undue advantage of the protection afforded him by the Tariff shall be held in public, and evidence in such inquiries shall be taken in public on oath, unless any witness objects to giving any evidence in public which the Board is satisfied is of a confidential nature, when the Board may take such evidence in private. Evidence taken by the Board in connexion with any inquiry under the Customs Tariff (Industries Preservation) Act 1921-1936 shall be taken in public on oath.

The Minister for Trade and Customs, by reference dated 19th May, 1942, called for investigation, report and recommendations from the Board on all aspects of the general problem of the re-establishment of secondary industries as part of the Commonwealth post-war reconstruction plan. In particular it was desired that the Board investigate and make interim and final reports and recommendations on—

- (a) The extent to which it will be technically possible to adapt for civilian industry, plant, equipment, materials and man-power (male and female employees) employed in defence production, and to what extent (so far as can be foreseen) such adaptation is likely to be economically desirable.
- (b) The disposition of surplus plant, equipment and stores of materials from the defence and other industries after the war.
- (c) Any measures which may be required to facilitate the re-establishment after the war of industries or concerns contracted or closed down during the war.
- (d) The degree to which any proposals made will solve the problem of the absorption into civilian avocations of members of the Forces.
- (e) Changes in the organization and structure of Australian secondary industries since 1939 tending to increase industrial concentration, and any action arising therefrom that may be desirable in the interest of consumers.
- (f) The possible effects of developments in Australia and overseas on the Australian system of encouragement and protection to industry by Tariff and Bounty.
- (g) Other matters relating to the establishment, diversification, development and location of Australian secondary industries after the war.

Since the reference was made the position was changed by the creation of the Ministry of Post-war Reconstruction and the setting up of the Secondary Industries Commission. These instrumentalities are now engaged in surveys of a general character, and action by the Tariff Board under the reference is therefore limited to investigations into specific industries or sections of industries. Specific references were received from the Minister for Trade and Customs during 1943-44 relating to bicycles, turbo-generators and plastics.

The annual report of the Tariff Board for 1943-44 stated that no work was undertaken in connexion with the revision of the Customs and Excise Tariffs and that all matters referred by the Minister were under regulation 3A of the National Security (Inquiries) Regulations and were conducted by means of private inquiries, numbering 124, and correspondence.

All references related to post-war reconstruction of secondary industries, except for the following two questions, which were the subject of public inquiries :—

1. Relating to the production in Australia of woven wool piecegoods during the period of the existing war—
 - (a) What changes have taken place in the quality of worsted and woollen cloths produced.
 - (b) To what extent are cloths being produced of a quality inferior to the highest quality permitted by the Control of Woollens Order made under the National Security (General) Regulations.

- (c) How effective is the existing system of control of the production of wool textiles and yarns in preventing the manufacture of cloths of unduly low quality.
 - (d) What measures are necessary and desirable to maintain or improve the quality of wool piecegoods produced in Australia.
2. Whether the payment of a subsidy to the raw sugar producing industry is warranted and, if so, what amount of subsidy is justified and what conditions, if any, should govern the payment.

Of the 20 reports furnished to the Minister during the year, one related to the quality of woven wool piecegoods; seventeen to post-war reconstruction of secondary industries, and two to the question of bringing into operation deferred rates of Customs Duty.

The annual report of the Tariff Board for 1944-45 stated that during the year public inquiries were held on the following twelve subjects:—

- (a) Questions of the combined payment of bounty on the manufacture of wire netting, tractors and sulphur in Australia.
- (b) Prices for grapes and fortifying spirit.
- (c) Administration of the Control of Liquor Order.
- (d) The use of cane sugar in the manufacture of Australian sauterne.
- (e) Fortifying spirit in the manufacture of Australian wine.
- (f) Machinery for the production of round body open-end cans for use in processing foodstuffs.
- (g) Hops.
- (h) Spun synthetic fibre piecegoods.
- (i) Raw cotton.
- (j) Tariff Revision—Question of the rate of duty to be imposed on imports of phenacetir, caffeine alkaloid, caffeine citrate, theobromine, and parphenetidine.

During the year 1944-45 sixteen reports were furnished to the Minister for Trade and Customs. Ten reports were the result of public inquiry, one relating to a subsidy to the raw sugar producing industry and the remaining nine to the subjects mentioned in (a) to (g) above; three were confidential reports on post-war reconstruction of secondary industry, two on the question of bringing deferred rates of duty into operation and one on the question of granting financial assistance to an Australian manufacturer.

Six references from the Minister for Trade and Customs were on hand on 1st July, 1945, five of which related to Tariff Revisions and one to the question of the present position and future prospects of the Australian plastics industry.

The Minister for Trade and Customs on 14th December, 1932, referred to the Tariff Board for public inquiry and report the question as to the practicability of evolving some method of varying duties imposed under protective items of the Customs Tariff to meet the operation of exchange and primage. The recommendation of the Board regarding exchange adjustment was embodied in Customs Tariff (Exchange Adjustment) Act 1933. In regard to primage duty, the Board reaffirmed its recommendation to the Minister, dated 5th August, 1932, that primage duty should be removed from protective items in the Tariff Schedule, and suggested the adoption of such recommendation as soon as the Government considered that revenue considerations permitted.

15. Trade Descriptions.—The Commerce (Trade Descriptions) Act 1905 as amended by the Acts of 1926, 1930 and 1933 gives power to compel the placing of a proper description on certain prescribed goods, or on packages containing the same, being imports or exports of the Commonwealth. The goods to which a trade description must be applied are:—

- (a) Articles used for food or drink by man, or used in the manufacture or preparation of articles used for food or drink by man;
- (b) medicines or medicinal preparations for internal or external use;
- (c) manures;
- (d) apparel (including boots and shoes), and the materials from which apparel is manufactured;
- (e) jewellery;
- (f) seeds and plants;
- and (g) brushware.

16. Acts Passed in 1943 and 1944.—The following Commonwealth Acts relating to Australian production and trade were assented to during the years 1943 and 1944 :—

ACTS PASSED IN 1943.

- Customs Tariff Validation Act, No. 4 of 1943. An Act to provide for the Validation of Collections of Duties of Customs under Customs Tariff Proposals.
- Customs Tariff (Exchange Adjustment) Validation Act, No. 5 of 1943. An Act to provide for the Validation of Adjustment in Duties of Customs under Customs Tariff (Exchange Adjustment) Proposals.
- Customs Tariff (Special War Duty) Validation Act, No. 6 of 1943. An Act to provide for the Validation of Collections of Duties of Customs under Customs Tariff (Special War Duty) Proposals.
- Customs Tariff (New Zealand Preference) Validation Act, No. 7 of 1943. An Act to provide for the Validation of Collections of Duties of Customs under Customs Tariff (New Zealand Preference) Proposals.
- Customs Tariff (Canadian Preference) Validation Act, No. 8 of 1943. An Act to provide for the Validation of Collections of Duties of Customs under Customs Tariff (Canadian Preference) Proposals.
- Excise Tariff Validation Act, No. 9 of 1943. An Act to provide for the Validation of Collections of Duties of Excise under Excise Tariff Proposals.
- Primary Producers Relief (Superphosphate) Act, No. 20 of 1943. An Act to provide Relief to Primary Producers by Stabilizing the Price of Superphosphate and for other purposes.
- Customs Tariff Validation (No. 2) Act, No. 28 of 1943. An Act to provide for the Validation of Collections of Duties of Customs under Customs Tariff Proposals.
- Customs Tariff (Exchange Adjustment) Validation (No. 2) Act, No. 29 of 1943. An Act to provide for the Validation of Adjustments in Duties in Customs under Customs Tariff (Exchange Adjustments) Proposal.
- Customs Tariff (Special War Duty) Validation (No. 2) Act, No. 30 of 1943. An Act to provide for the Validation of Collections of Duties of Customs under Customs Tariff (Special War Duty) Proposals.
- Customs Tariff (New Zealand Preference) Validation (No. 2) Act, No. 31 of 1943. An Act to provide for the Validation of Collections of Duties of Customs under Customs Tariff (New Zealand Preference) Proposals.
- Customs Tariff (Canadian Preference) Validation (No. 2) Act, No. 32 of 1943. An Act to provide for the Validation of Collections of Duties of Customs under Customs Tariff (Canadian Preference) Proposals.
- Excise Tariff Validation (No. 2) Act, No. 33 of 1943. An Act to provide for the Validation of Collections of Duties of Excise under Excise Tariff Proposals.
- Dairying Industry Assistance Act, No. 37 of 1943. An Act to provide for the granting of Assistance to the Dairying Industry with the object of aiding the Prosecution of the War, and for other purposes.

ACTS PASSED IN 1944

- Coal Production (War Time) Act, No. 1 of 1944. An Act to secure increased production of Coal, and to provide for the Distribution of Coal, in the interests of the Defence of the Commonwealth and the effectual prosecution of the present War and for other purposes.
- Wheat Subsidy Act, No. 17 of 1944. An Act to provide for the granting of Assistance to Wheat Growers.
- Wheat Industry (War Time Control) Act, No. 19 of 1944. An Act to amend the Wheat Industry (War Time Control) Act 1939-1940.
- Excise Tariff Rebate Act, No. 21 of 1944. An Act to provide for a Rebate of certain Duties of Excise.

- Tractor Bounty Act, No. 37 of 1944. An Act to amend the Tractor Bounty Acts 1939.
- Sulphur Bounty Act, No. 38 of 1944. An Act to amend the Sulphur Bounty Acts 1939.
- Wire Netting Bounty Act, No. 39 of 1944. An Act to amend the Wire Netting Bounty Act 1939-1940.
- Aluminium Industry Act, No. 44 of 1944. An Act to approve and give effect to an Agreement made between the Commonwealth and the State of Tasmania with respect to the production, for the purposes of Defence, of Ingot Aluminium, and for other purposes.
- Wine Export Bounty Act, No. 45 of 1944. An Act to amend the Wine Export Bounty Act 1939-1940.

§ 3. Lend-Lease and Mutual Aid between Australia and The United States.

1. **Lend-Lease.**—(i) *The Pre-Lend-Lease Period.*—As a result of the disturbance of customary sources of supply following the outbreak of the 1939-45 War, Australia sought more and more of her essential import requirements from the United States. Apart from military equipment the growth in the local war production programme made it necessary to import large quantities of machine tools, raw materials, and components which were unprocureable locally. Many former sources of these essential requirements had fallen into enemy hands. Although still the largest supplier of essential goods to Australia, the United Kingdom now had become unable to export many of the goods which she formerly supplied. Thus, prior to the passage of the United States Lend-Lease Act, Australia was already buying on an unprecedented scale in the United States.

(ii) *Background to the Passage of the United States Lend-Lease Act.*—The United States Lend-Lease Act arose out of the exhaustion of the dollar reserves of the British Commonwealth. Towards the end of 1940 it was apparent that dollar exchange could no longer be provided to cover the contracts for munitions and other war materials necessary to enable the British Commonwealth to prosecute the war against the Axis powers. Practically all the important units of the Empire had already taken steps to eliminate the importation of commodities required for non-essential purposes and the scope for further economies was strictly limited. The extent of the commitments already entered into with the United States manufacturers was so great that not only were existing dollar and gold reserves used up, but future dollar earnings were heavily mortgaged. To meet this situation the United States Administration evolved the principles embodied in the Lend-Lease Act.

(iii) *The Basic Principle of the Lend-Lease Act.*—The United States Lend-Lease Act which became effective on 11th March, 1941, empowered the United States Government to assist Foreign Governments, whose defence the President deemed vital to the defence of the United States, by supplying them with the goods and services which they required for war purposes. The aid which might be made available under the terms of the Act included not only finished munitions such as planes, tanks, guns, ammunition and other military equipment, but also raw materials, foodstuffs and other articles required for the war effort of the recipient countries. The Act provided that the terms and conditions upon which any Foreign Government received Lend-Lease aid should be those which the President deemed satisfactory and that the benefit to the United States might be payment or repayment in kind or property or any other direct or indirect benefit.

(iv) *The Duration of the Lend-Lease Act.*—The original Lend-Lease Act provided that the powers given to the United States Government to grant lend-lease aid to other countries should terminate on 30th June, 1943. Later Acts of Congress extended the operation of the Lend-Lease Act to 30th June, 1946. In extending the Act to 30th June,

1946, Congress at the same time passed an amendment specifically prohibiting the use of the powers conferred by the Act for purposes of post-war relief, rehabilitation or reconstruction.

On 22nd August, 1945, the President of the United States announced the termination of lend-lease and ordered the cancellation of all outstanding contracts except where Allied Governments were willing to accept responsibility for them or where it was in America's interest to complete them. For particulars of the settlement of lend-lease *see* Appendix.

2. **The Mutual Aid Agreement.**—A Mutual Aid Agreement between the United States and the United Kingdom was signed on 23rd February, 1942, and this was applied to Australia on 3rd September, 1942. The agreement set forth the conditions under which mutual aid would be supplied between the two countries. Article VII. of the agreement contained the following provisions relating to the principles to be followed in the ultimate lend-lease settlement.

"In the final determination of the benefits to be provided to the United States by the Government of the United Kingdom in return for aid furnished under the Act of Congress of the 11th March, 1941, the terms and conditions thereof shall be such as not to burden commerce between the two countries, but to promote mutually advantageous economic relations between them and the betterment of world-wide economic relations. To that end they shall include provision for agreed action by the United States and the United Kingdom, open to participation by all other countries of like mind, directed to the expansion, by appropriate international and domestic measures, of production, employment, and the exchange and consumption of goods, which are the material foundations of the liberty and welfare of all peoples; to the elimination of all forms of discriminatory treatment in international commerce, and to the reduction of tariffs and other trade barriers; and, in general, to the attainment of all the economic objectives set forth in the joint declaration made on the 12th August, 1941, by the President of the United States and the Prime Minister of the United Kingdom".

For the full text of the Agreement see Official Year Book No. 35 (pp. 395-6).

3. **Australia-United States Reciprocal Aid Agreement.**—An agreement was concluded at Washington on 3rd September, 1942, between the United States and Commonwealth Governments defining the undertaking of each Government to make available to the other, on lend-lease terms, material aid for the prosecution of the war. The agreement was in the form of an exchange of notes between the Australian Minister at Washington (Sir Owen Dixon) and the United States Secretary of State (Mr. Cordell Hull).

The agreement affirmed the general principle that the war production and war resources of both nations should be used by the armed forces of each in the ways which most effectively utilized available materials, man-power, production facilities and shipping space. It stated specifically that the United States Government would continue to provide such aid to Australia on lend-lease terms in accordance with the Lend-Lease Act of the 11th March, 1941. Reciprocally, it defined the principles on which Australian aid was in turn to be made available to the United States.

As regards the reciprocal undertaking by Australia, the immediate occasion for the agreement arose from the arrival of United States Armed Forces in Australia soon after the entry of Japan into the war. As early as February, 1942, the Commonwealth Government had made known in Washington its readiness to discuss with the United States Government the provision on lend-lease terms of supplies and equipment, which had already been, and would in future be, made available out of Australian resources to the United States Forces in Australia.

The agreement provided that as large a portion as possible of the articles and services which each Government might authorize to be provided to the other should be in the form of reciprocal aid, that is on lend-lease terms, so that the need of each Government for the currency of the other might be reduced to a minimum.

Thus the Commonwealth would, in accordance with its potentialities and responsibilities, authorize the provision on lend-lease terms of the following types of assistance to the Armed Forces of the United States in Australia or its Territories and in such other cases as might be determined by common agreement:—

- (i) Military and naval stores, equipment and munitions;
- (ii) Other supplies, material, facilities and services of United States Forces, except for pay and allowances and administrative expenses of such Forces;
- (iii) Supplies, materials and services needed in the construction of military works.

In addition, the note addressed by the Australian Minister to the Secretary of State declared, on behalf of the Commonwealth Government, that Australia accepted the principles contained in the Mutual Aid Agreement concluded between the United States and the United Kingdom Governments on the 23rd February, 1942, as governing also the provision of mutual aid between the United States and Australia. In this way Australia was formally included in the framework of the arrangements made by the United States Government, in accordance with the Lend-Lease Act 1941, with others of the United Nations which were in receipt of United States Lend-Lease assistance.

4. *Procedure by which Australia received Lend-Lease Aid.*—(i) *General.* Two organizations were set up by the Commonwealth Government to handle the procurement of lend-lease supplies from the United States. The first, operating in Australia, was the Division of Import Procurement, which was set up within the Department of Trade and Customs in September, 1941. The second, which functioned in Washington, was the Australian War Supplies Procurement Office established in December, 1941.

(ii) *Procedure in Australia.* The advent of lend-lease made it necessary to set up a Government organization to act as the Central Clearing House for co-ordinating orders in order that bulk requisitions covering all Australian requirements of the commodity in question might be submitted to the United States Government for consideration. It was also necessary to establish an organization to handle the receipt and distribution of lend-lease goods supplied to the Commonwealth Government by the United States Government. These functions were carried out by the Division of Import Procurement which also maintained the central records of all lend-lease transactions including those relating to requisitions for military equipment and production materials placed through the Service Departments and the Departments of Munitions and Aircraft Production.

All Australian lend-lease requisitions were presented to the United States Foreign Economic Administration Mission in Australia and to the Commander-in-Chief, South-West Pacific Area, for their approval before they were dispatched to Washington for submission to the United States Administration,

(iii) *Procedure in the United States.* Prior to the passage of the Lend-Lease Act an Australian Division of the British Purchasing Commission had been established in New York to handle Australian Government purchases in the United States. This organization handled the negotiation of contracts with American manufacturers and the technical details of procurement. The accounting and financial side of the transactions was dealt with by the Australian Government Trade Commissioner's Office in New York.

This procedure carried over into the initial lend-lease period, but as lend-lease transactions were inter-governmental transactions of a character quite different from ordinary commercial contracts, the Government decided in December, 1941, to bring all sections of Lend-Lease and Supply work into a single organization under unified control, with head-quarters in Washington. The new organization was designated "Commonwealth of Australia—War Supplies Procurement".

The Australian War Supplies Procurement organization received Australian requisitions after they had been approved by the United States Foreign Economic Administration Mission in Australia and the Commander-in-Chief, South-West Pacific Area, and lodged them with the United States Foreign Economic Administration in Washington through the British Supply Council which acted as the central channel for the submission of all British Empire requisitions,

The United States Foreign Economic Administration, when it approved a requisition, passed it out to one of the five United States Government Departments charged with the actual work of procurement. These five Departments were the War Department, the Navy, the Maritime Commission, the Department of Agriculture and the Procurement Division of the United States Treasury. These Procurement Departments arranged the necessary contracts with the United States manufacturers and when the goods were ready for delivery, handed them over to the British Ministry of War Transport which supervised their shipment to Australia in collaboration with the Australian representatives in the United States.

A different procedure was followed for finished munitions which were subject to assignment by the Combined Munitions Assignment Board. The Branch of the Board which functioned in Washington assigned the finished munitions coming off the production lines in the United States to the various theatres of war in accordance with the overall strategic requirements of the war situation.

With the setting up of the Combined Munitions Assignment Board it became necessary to strengthen Australian Service representation in the United States and an Australian Military Mission and an Australian Air Mission were established in Washington. Broadly speaking, the function of the Service Missions was to ensure that Australian requirements of Army and Air Force equipment were adequately presented to the Combined Munitions Assignment Board and to follow up all such requirements as far as the assignment stage. Once assignment was made Australian War Supplies Procurement assisted the Service Missions in the recording, accounting and shipping side of the work.

(iv) *Distribution of Lend-Lease Goods.* In its general policy regarding the distribution of lend-lease goods received, the Commonwealth Government was guided by the principles laid down in the United Kingdom Memorandum of 10th September, 1941, on export policy and the distribution of lend-lease goods. The basic principle embodied in this Memorandum was that all goods obtained under the Lend-lease Act would be used for the prosecution of the war effort and that they would not in any case be diverted to the furtherance of private interests. Where distributors were employed, an undertaking was given that whatever the method of distribution, the remuneration received by the distributors would be no more than a fair return for the services rendered. Any opportunity for speculative profit by private interests in dealing with lend-lease goods was rigorously excluded.

Tentative figures which have been compiled by the United States Foreign Economic Administration showed that the total value of goods and services supplied to Australia under lend-lease up to the end of June, 1945, was \$1,154,000,000. Australian Departmental records of the goods received under lend-lease show that the percentage of the various categories of material were as follows :—

	Per cent.
Direct War Materials	39.6
Petroleum Products	12.8
Transportation Equipment	13.7
Machinery and Tools	7.0
Metals	7.0
Textiles and Textile Raw Materials	6.3
Other Items	13.6
	100.0

5. *Procedure by which Reciprocal Lend-Lease Aid was given by Australia.*—In order that no delay should occur in providing for the goods and services required by the United States Forces, which were eligible for Reciprocal Lend-Lease treatment, the Department of the Treasury made arrangements for the United States Demanding Authority to approach directly the appropriate Australian Government Departments. A reasonably wide

and general authority was given to these Departments to provide supply or service demanded by the United States Forces. This policy enabled United States requirements to be met from available resources with a minimum of time in making official decisions on supply and provision of funds.

Eligibility for any supply or service as Reciprocal Lend-Lease was interpreted liberally and on point of availability. United States Forces enjoyed an equal priority with Australian Forces and in some instances received preference.

6. Scope of Reciprocal Lend-Lease Aid given by Australia.—In pursuance of the exchange of notes between the Australian Government and the Government of the United States, referred to in par. 3, extensive assistance was provided to the United States Forces as Reciprocal Aid.

The following items indicate the extent of this assistance but the list is to be taken as illustrative of scope rather than inclusive of every type of supply or service :—

Rations, Camp Stores, &c. During 1942 and for the early part of 1943 the Australian Army Supply and Transport Service provided and distributed a full ration scale for all the American Forces. Subsequently, the United States Army made its own ration supply arrangements and procured its food supplies in bulk through the Department of Commerce and Agriculture.

The estimated quantities of the main items of foodstuffs supplied to 30th June, 1945, were :—

Meat	179,800 long tons.
Bread, Biscuits and Cereals (including flour)	231,400 " "
Potatoes	74,800 " "
Vegetables and Fruit	212,000 " "
Canned Goods	87,000 " "
Sugar	79,200 " "
Butter	35,200 " "
Milk (condensed and evaporated)	38,000 " "
Milk	60,800,000 pints.
Eggs	55,100,000 dozen.

General Supplies. The Contracts Board, Department of Supply and Shipping, dealt with a very wide variety of items for direct supply to the United States Forces. Items supplied included uniforms and clothing, boots, machinery, motor vehicles and an extensive range of general stores and equipment.

Statistical details of the major items of clothing made available to the United States Forces up to 30th June, 1945, were as follows :—

Item.	Number Ordered.	Number Delivered.
Caps and Hats	289,946	276,529
Gloves	1,145,604 pairs	781,258 pairs
Helmets, Tropical	35,000	35,000
Headnets, Mosquito	822,343	821,829
Jackets	529,682	501,813
Shirts	725,052	720,052
Socks	11,686,420 pairs	11,224,625 pairs
Sweaters	268,862	260,872
Underwear (Male)	468,669	468,669
Ties	920,432	920,432
Blankets	1,544,600	1,544,600
Boots and Shoes	1,934,748	1,872,717
Trousers and Shorts	387,652	353,534
Boot and Shoe Repair materials pieces	13,760,638	7,687,278

Ships. A large number of harbour craft and coastal vessels were either purchased or chartered for the United States Army. In addition, an extensive programme of construction of small craft of the tug, barge, and lighter type was put in hand by the Australian Shipbuilding Board,

Repairs of Aircraft, Vehicles and Ships. Provision was made for essential repairs to United States ships suffering damage. Provision was also made for the servicing of United States aircraft engines and airframes (including such spares as were locally available) but this type of assistance gradually declined as the war moved away from Australia.

Stevedoring and Port Services. Arrangements were made for all United States vessels carrying cargo for their Forces or the Australian Government to be provided with free port service, stevedoring, etc.

Rail, Air and Sea Transportation. The United States Authorities were placed in the position where they could demand rail, air and sea transportation for service goods and personnel, the accounts being paid by the appropriate Australian Department on certification of service by the United States Authorities.

Communications. The Postmaster-General's Department provided telephone, telegraph and teleprinter services in Australia, and in addition, external cable and wireless charges.

Accommodation. Apart from construction of camps, aerodromes, stores, etc., a large number of buildings in various localities were hired for the United States Forces for use as office, store, hospital, etc., accommodation.

Operation of United States Transport Aircraft by Civil Airline Companies. Arrangements were made for certain United States transport aircraft to be operated by civil airline companies and the cost charged to Reciprocal Lend-Lease. In addition, Australian civil airline planes were provided to the United States Forces under charter arrangements.

General Services. All Departments provided a wide range of stores and services on United States account. The Department of Air, for example, supplied general and maintenance stores, including spare parts for aircraft. The Department of the Army supplies included artillery and ammunition as well as general stores and equipment and medical stores. The Department of the Navy supplied considerable quantities of general pattern stores and provided a wide range of service for ships of the United States Navy.

Capital Works. The works programme covered construction of aerodromes with ancillary buildings and services, aircraft assembly and repair depots, storage depots, camp and hospital accommodation, wharf facilities with the usual engineering services in the way of roads, railway connexions, water supply, sewerage, electric light, etc. With the movement of United States troops to new areas of operation in the Pacific, works construction on barracks, airfields, etc., declined and many installations were returned for use by Australian Forces or for disposal.

The total recorded Reciprocal Lend-Lease expenditure by Australia to the 30th June, 1945, was £258.5 millions, made up as follows :—

Year.						£ million.
1941-42	..	..	..	..	..	6.5
1942-43	..	..	..	..	..	59.0
1943-44	..	..	..	..	..	103.9
1944-45	..	..	..	..	..	89.1
Total	..	..	..	..	..	<u>258.5</u>

§ 4. Mutual Aid between Canada and Australia.

1. *Canadian Mutual Aid Act.* The Canadian Mutual Aid Act became law on 20th May, 1943. Under this Act a Canadian Mutual Aid Board was established for the procurement of supplies and services which it was empowered to "contribute, exchange, deliver, transfer title to or possession of or otherwise make available . . . to any of the United Nations",

The necessity for the Mutual Aid Act was brought about by the increasing disparity between Canadian exports to sterling countries and her imports from the sterling area. The consequent shortage of Canadian dollars made imperative some special financial arrangement. Various steps were taken by the Canadian authorities to meet this problem.

Early in 1942 the Canadian Government made an interest-free loan to the United Kingdom Government of seven hundred million dollars and followed this up by a billion dollar gift to meet the requirements of the sterling area for 1942-43.

In February, 1943, the Canadian Government announced its Mutual Aid plan and the passing of the Mutual Aid Act and the establishment of the Mutual Aid Board was the direct outcome of that announcement.

2. Australia-Canada Mutual Aid Agreement. On 9th March, 1944, Australia signed an agreement with Canada setting out the general principles governing the provision of mutual aid between the two countries during the war.

The agreement recognised the necessity of the distribution of available war supplies in accordance with strategic needs and that the conditions of supply "should not be such as to burden post-war commerce or lead to the imposition of trade restrictions or otherwise prejudice a just and enduring peace".

With this end in view the agreement provided for the supply of Mutual Aid to Australia for the joint and effective prosecution of the war. The Canadian Government specifically undertook not to require the redelivery of any war supplies with the exception of :—

- (a) Cargo ships.
- (b) Goods transferred to Australia but not delivered at the cessation of hostilities.
- (c) Aircraft and automotive equipment under certain conditions.
- (d) Ordnance or military equipment required for Canadian forces and no longer required by the Commonwealth of Australia.

The two Governments also reaffirmed their desire to promote mutually advantageous economic relations throughout the world and declared "that their guiding purposes include the adoption of measures designed to promote employment, the production and consumption of goods, and the expansion of commerce through appropriate international agreements on commercial policy, with the object of contributing to the attainment of all the economic objectives set forth in the Declaration of 14th August, 1941, known as the Atlantic Charter".

Australia also undertook to contribute to the defence of Canada by supplying "such articles, services, facilities, or information as it may be in a position to supply and as may from time to time be determined by common agreement in the light of the development of the War".

3. Procedure. The administrative procedures followed were somewhat similar to Lend-Lease procedures. The co-ordinating authority in Australia for Canadian Mutual Aid transactions was the Division of Import Procurement, and at the Canadian end Australian War Supplies Procurement (which has branch offices in Ottawa and Vancouver) handled the filing of requisitions with the Canadian Mutual Aid Board and took all necessary follow-up action to the point where the goods were shipped to Australia.

4. Aid Received from Canada. Under the terms of the Mutual Aid Act, Canada assumed from 1st April, 1943, the whole cost of training Australian airmen in Canada under the Empire Air Training Scheme, until its termination on 31st March, 1945.

By taking over these charges, the Canadian Government relieved the Australian Government of heavy overseas expenditure running into millions of dollars.

Canada also shipped substantial quantities of goods to Australia under the Mutual Aid scheme as a free Canadian contribution to the conduct of the war in this area. Most of these supplies, the first of which arrived in Australian ports in November, 1943, were transported free of charge in Canadian Government-owned ships.

Among the goods supplied were: Military motor vehicles, guns, ammunition, explosives, aircraft components, medical supplies, military and naval stores, timber, asbestos, agricultural machinery and tools, special steels and ferrous alloys, electrical equipment, chemicals and textiles.

Up to March, 1945, the Canadian Mutual Aid Board estimated the value of goods and services supplied to Australia under Mutual Aid at about 76 million dollars. The categories of expenditure during that period expressed as percentages of the total were :—

Category of Expenditure.	Percentage.
British Commonwealth Air Training plan	36.4
Automotive Equipment and Mechanical Transport	23.0
Aircraft and parts	16.0
Freight, inland and ocean	7.7
Lumber and heavy material	5.4
Other items	11.5
Total	100.0

5. Termination of Mutual Aid. The transfer of supplies under Canadian Mutual Aid ceased as from 2nd September, 1945, the date of the surrender of Japan.

§ 5. Method of Recording Imports and Exports.

1. Value of Imports.—The recorded value of goods imported from countries beyond Australia as shown in the following tables represents the amount on which duty is payable or would be payable if the duty were charged ad valorem. The value of goods is taken to be 10 per cent. in advance of their fair market value in the principal markets of the country whence the goods were exported. Acting upon a recommendation of the Tariff Board the section of the Customs Act relating to the valuation of imports was amended, and section 154 (1) of the Customs Act 1901–1936 now provides that “when any duty is imposed according to value, the value for duty shall be the sum of the following :—

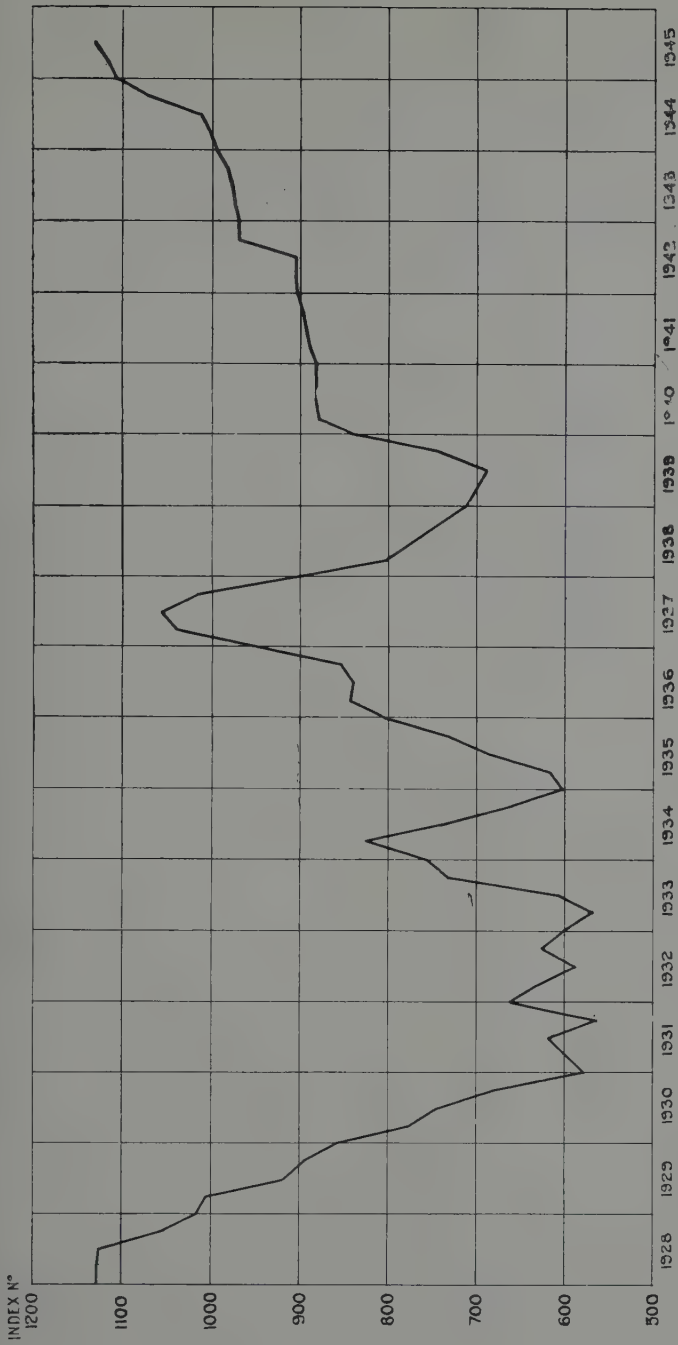
- (a) (i) the actual money price paid or to be paid for the goods by the Australian importer plus any special deduction, or
- (ii) the current domestic value of the goods, whichever is the higher ;
- (b) all charges payable or ordinarily payable for placing the goods free on board at the port of export ; and
- (c) ten per centum of the amounts specified under paragraphs (a) and (b) of this sub-section.

“Current domestic value” is defined as “the amount for which the seller of the goods to the purchaser in Australia is selling or would be prepared to sell for cash, at the date of exportation of those goods, the same quantity of identically similar goods to any and every purchaser in the country of export for consumption in that country”.

Imports are recorded in British currency values, and Section 157 of the Customs Act provides that when the invoice value of imported goods is shown in any currency other than British currency, the equivalent value in British currency shall be ascertained according to a fair rate of exchange to be declared in case of doubt by the Minister. Under this section it was the practice of the Department of Trade and Customs, until 8th December, 1920, to convert on the basis of the mint par of exchange. Since the date mentioned, in consequence of a ruling of the High Court, all conversions have been based on the commercial rates of exchange.

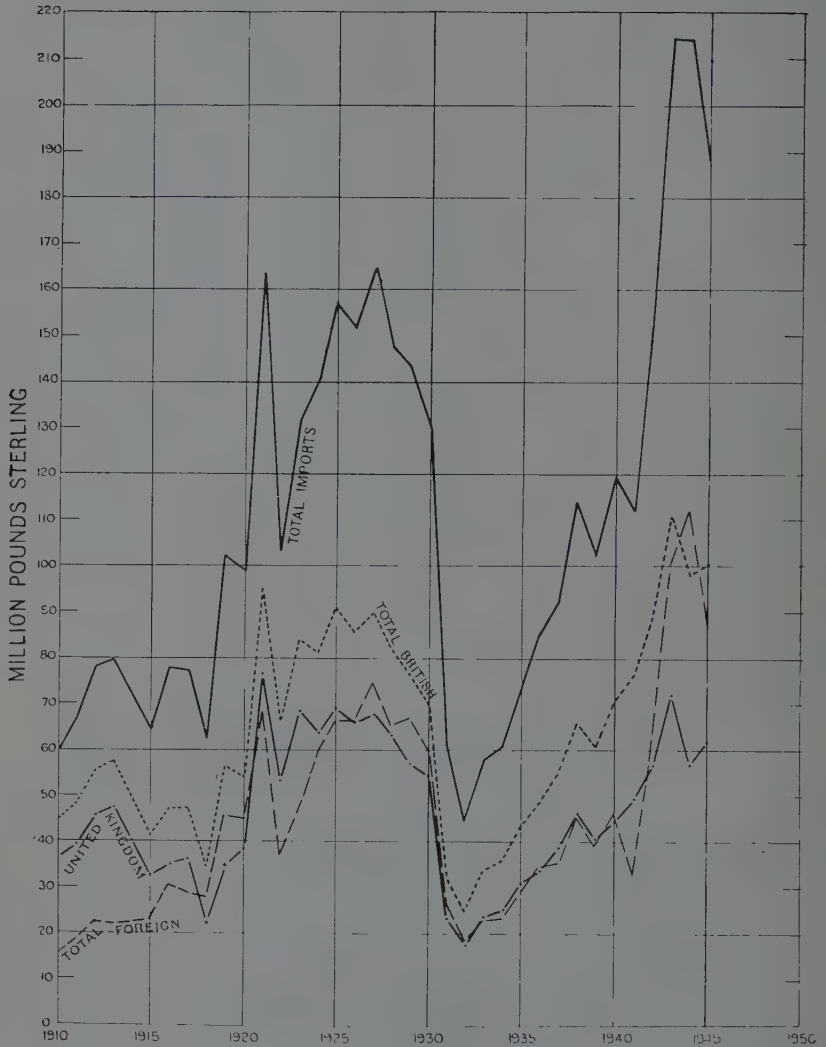
The term “British currency values” is not exactly synonymous with “English sterling”, since imports already expressed in terms of £ s. d. are regarded for duty purposes as being expressed in British currency values. This exception to the general rule is chiefly important in the case of imports from Fiji, New Zealand, and the Union of South Africa when their currencies are not at par with English currency. In all the tables in this volume no correction has been made on this account, even when for the sake of brevity the term “sterling” has been used as a contraction for “British currency values”.

EXPORT PRICES INDEX-NUMBERS-AUSTRALIA, 1928 TO 1945.

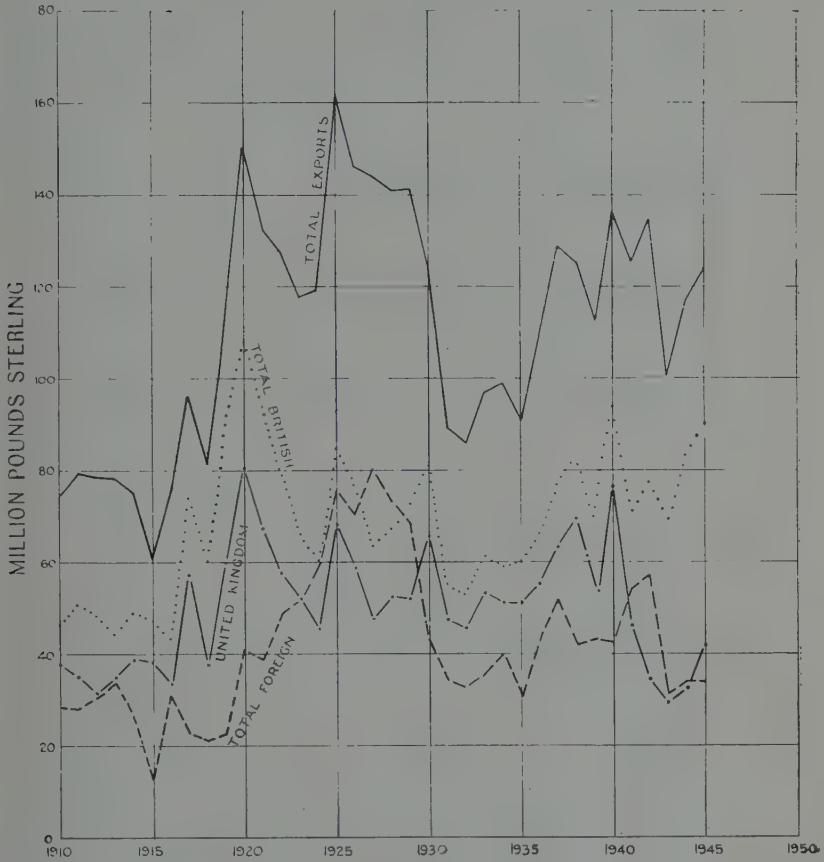


EXPLANATION.—This graph represents the Fixed Base series of Export Price Index-Numbers computed quarterly with the average for year 1928-29 as base (=1,000).

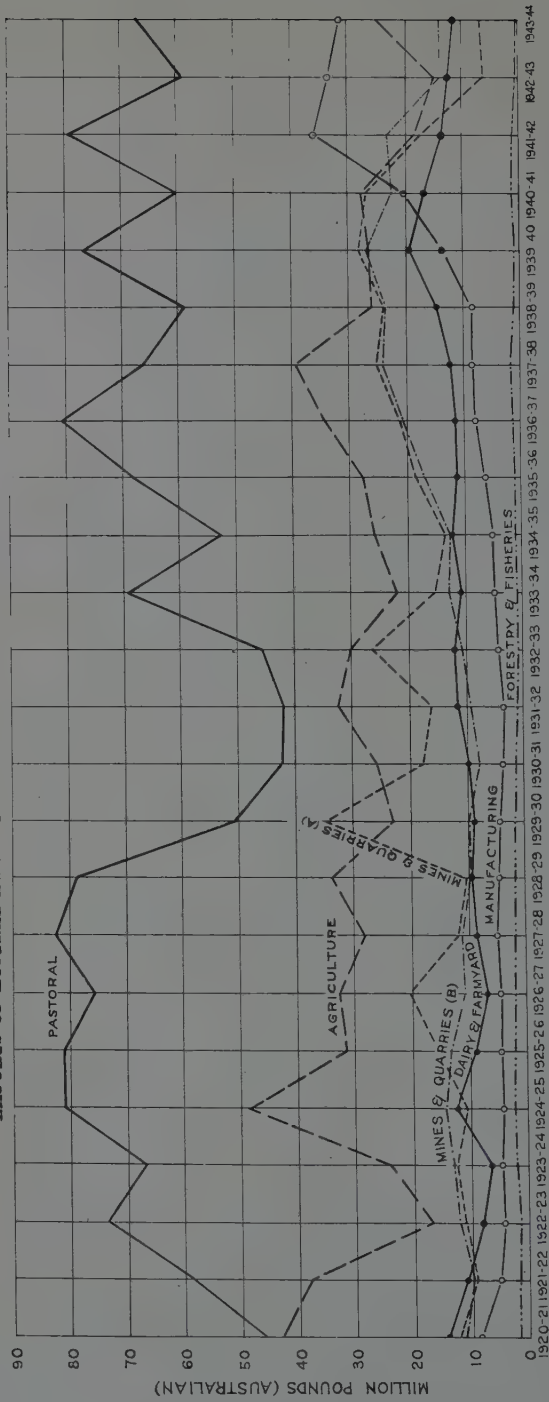
IMPORTS INTO AUSTRALIA, 1910 TO 1945.



EXPORTS FROM AUSTRALIA, 1910 TO 1945.



EXPORTS OF AUSTRALIAN PRODUCTS ACCORDING TO INDUSTRIES, 1920-21 TO 1943-44.



EXPLANATION.—Mines and Quarries (A) represents the total exports of the produce of this industry, including bullion and specie.
Mines and Quarries (B) represents the export of products other than gold, to which is added the value of gold produced in the respective years.

2. **Value of Exports.**—Prior to 1st July, 1929, the recorded value of all goods exported was taken as representing the value in the principal markets of Australia in the ordinary commercial acceptance of the term. Owing to the inflated values arbitrarily allotted in recent years to commodities which are subject to governmental control or subsidy, some change in the practice of valuation of exports of such commodities became desirable. Accordingly a new basis was adopted as from 1st July, 1929, for the statistical valuation of exports of sugar, butter and goods on which bounty or rebate was paid, which would show for (a) *Sugar*—the value f.o.b. at which sold to oversea buyers, or a f.o.b. value equal to the London market price if shipped on consignment; (b) *Goods on which bounty or rebate was paid on export*—the value in the principal markets of Australia in the ordinary commercial acceptance of the term, less the value of any bounty or rebate. Until 31st March, 1934, the basis adopted for the value of exports of *butter* was the current market value, less the amount paid as export bonus. From 31st March, 1934 to 30th June, 1937, the basis was (a) sold in Australia for export—the f.o.b. equivalent of the price at which the butter was sold and (b) shipped on consignment—the f.o.b. equivalent of the ruling price overseas.

From 1st July, 1930 to 30th June, 1937, the basis adopted for the value of *wool* exported was (a) sold in Australia for export—the actual price paid plus the cost of services incurred in placing the wool on board ship, and (b) shipped on consignment—the f.o.b. equivalent of ruling Australian prices.

From 1st July, 1932 to 30th June, 1937, the basis adopted for the value of *wheat* exported was (a) sold in Australia for export—the f.o.b. equivalent of the price at which the wheat was sold, and (b) shipped on consignment—the f.o.b. equivalent of the current selling price overseas.

From 1st July, 1934 to 30th June, 1937, the basis adopted for the value of *flour* exported was (a) sold in Australia for export—the f.o.b. equivalent of the price at which the flour was sold, and (b) shipped on consignment—the f.o.b. equivalent of ruling Australian prices.

Since 1st July, 1937, the following revised definitions of f.o.b. values have been adopted for exports generally:—

- (1) Goods sold to oversea buyers before export—the f.o.b. equivalent of the price at which the goods were sold (e.g. as regards wool, the actual price paid by the oversea buyer plus the cost of all services incurred by him in placing the wool on board ship).
- (2) Goods shipped on consignment—the Australian f.o.b. equivalent of the current price offering for similar goods of Australian origin in the principal markets of the country to which the goods were dispatched for sale (as regards wool, the f.o.b. equivalent of current price ruling in Australia will normally provide a sufficient approximation to the f.o.b. equivalent of the price ultimately received).

All values to be shown in terms of Australian currency, and to include cost of containers.

3. **Customs Area.**—The Customs Area, to which all oversea trade statistics issued by this Bureau apply, is the whole area of the Commonwealth of Australia, comprising the States of New South Wales (including Australian Capital Territory), Victoria, Queensland, South Australia, Western Australia and Tasmania, and the Northern Territory. Non-contiguous territories and mandated areas are treated as outside countries, and trade transactions between Australia and these non-contiguous territories are part of the oversea trade of Australia. Such transactions are shown separately, i.e., the trade of Australia with each particular country is separately recorded and tabulated.

4. **Statistical Classification of Imports and Exports.**—Statistics of oversea imports and exports from which the summary tables in this issue of the Official Year Book have been extracted were compiled according to a classification which came into operation on 1st July, 1922. In order to meet the demand for more detailed information relating to imports and exports a revised statistical classification was introduced from 1st July, 1945. The new classification provides for over 2,600 separate import items and 1,100 export items.

5. **The Trade Year.**—From 1st July, 1914, the statistics relating to Oversea Trade have been shown according to the financial year (July to June). Prior to that date the figures related to the calendar year. A table is given in § 17 showing the total value of imports and exports in the calendar years 1941 to 1945 inclusive.

6. **Records of Past Years.**—In the years preceding Federation each State independently recorded its trade, and in so doing did not distinguish other Australian States from foreign countries. As the aggregation of the records of the several States is necessarily the only available means of ascertaining the trade of Australia for comparison with later years, it is unfortunate that past records of values and the direction of imports and exports were not on uniform lines. The figures in the following tables for years prior to Federation have been carefully compiled and may be taken as representative of the overseas trade of Australia as a whole. On the introduction of the Customs Act 1901, the methods of recording values were made uniform throughout the States, but it was not until September, 1903, that a fundamental defect in the system of recording transhipped goods was remedied. Prior to 1905 the value of ships imported or exported was not included in the returns of trade.

7. **Overseas Trade During the 1939–45 War.**—Available records of imports and exports during the 1939–45 War are incomplete. Export entries were not made for a substantial volume of war material and supplies exported to Australian and Allied forces serving abroad, particularly in Papua, the Territory of New Guinea and other parts of the Pacific Theatre of War. In addition, no export entries were passed for about £stg. 23,000,000 of war material exported to other Governments. In general, however, the export of foodstuffs was recorded without serious deficiency. Imports as recorded do not include supplies imported for their own use by Allied forces serving in Australia—some part of which may subsequently have found its way into the hands of the Australian Government or people—also some imports of war material by the Commonwealth Government Departments and some items imported for civil consumption under United States of America Lend-Lease and Canadian Mutual Aid. There were substantial delays in recording imports of war material by the Commonwealth Government Departments and some items imported for civil consumption under United States of America Lend-Lease and Canadian Mutual Aid. These delayed entries have been recorded in the month in which the entry was passed and not in the month of arrival of the goods into this country.

It should be noted, moreover, that the recorded trade figures during the war period did not necessarily reflect the amount payable for imports or receivable for exports. Export to Australian forces and to allied forces under Reciprocal Lend-Lease and imports under Lend-Lease and Mutual Aid required no payment. On the other hand payment was received for wool and some other minor items which were purchased by Great Britain under contract but not actually shipped and for some unrecorded exports of war material. In addition payment was made by Australia for some imports of war material in years prior to those in which import entries were recorded.

8. **Ships' Stores.**—Prior to 1906 goods shipped in Australian ports on board overseas vessels as ships' stores were included in the general exports. From 1906, ships' stores have been specially recorded as such, and omitted from the return of exports. A table showing the value of these stores shipped each year since 1935–36 is given in § 11, page 365.

§ 6. Oversea Trade.

1. **Total Oversea Trade.**—(i) *Including Gold.* The following table shows the total trade (including gold) of Australia with overseas countries from the earliest date for which records are available. To save space, the period 1826 to 1939–40 has been divided into five-yearly periods, and the figures shown represent the annual averages for the periods specified. The figures for individual years were published in earlier issues of the Official Year Book. (See note to following table.)

TOTAL OVERSEA TRADE : AUSTRALIA.

(INCLUDING GOLD.)

Period.(a)	Recorded Value.			Value per Inhabitant.			Percentage of Exports on Imports.
	Imports.	Exports.	Total.	Imports.	Exports.	Total.	
	£'000.	£'000.	£'000.	£ s. d.	£ s. d.	£ s. d.	%
1826 to 30	638	153	791	10 12 5	2 10 11	13 3 4	23.9
1831 " 35	1,144	613	1,757	11 19 10	6 8 6	18 8 4	53.6
1836 " 40	2,283	1,112	3,395	14 15 9	7 4 1	21 19 10	48.7
1841 " 45	1,906	1,378	3,284	9 0 5	6 10 5	15 10 10	72.3
1846 " 50	2,379	2,264	4,643	6 18 10	6 12 2	13 11 0	95.2
1851 " 55	11,931	11,414	23,345	19 12 5	18 15 4	38 7 9	95.7
1856 " 60	18,816	16,019	34,835	18 6 1	15 11 8	33 17 9	85.1
1861 " 65	20,132	18,699	38,831	15 17 1	14 14 9	30 11 10	93.0
1866 " 70	18,691	19,417	38,108	12 7 4	12 16 11	25 4 3	103.9
1871 " 75	21,982	24,247	46,229	12 7 2	13 13 6	26 0 8	110.3
1876 " 80	24,622	23,772	48,394	11 19 7	11 10 9	23 10 4	96.6
1881 " 85	34,895	28,055	62,950	14 4 3	11 9 5	25 13 8	80.4
1886 " 90	34,675	26,579	61,254	11 16 11	9 1 0	20 17 11	76.6
1891 " 95	27,335	33,683	61,018	8 5 2	10 2 5	18 7 7	123.2
1896 " 1900	33,763	41,094	74,857	9 5 4	11 5 6	20 10 10	121.7
1901 " 05	39,258	51,237	90,495	10 1 10	13 2 9	23 4 7	130.5
1906 " 10	51,508	(b)69,336	120,844	12 4 8	16 9 11	28 14 7	134.6
1911 " 15-16	73,411	74,504	147,915	15 7 4	15 12 10	31 0 2	101.5
1916-17 to 1920-21	100,735	115,066	215,801	19 7 9	22 2 10	41 10 7	114.2
1921-22 to 1925-26	136,844	134,545	271,389	23 15 6	23 7 7	47 3 1	98.3
1926-27 to 1929-30	146,848	137,976	284,824	23 7 0	21 18 10	45 5 10	94.0
1930-31 to 1934-35(c)	59,704	114,565	..	..	..	..	..
(d)	59,704	92,365	152,069	9 0 10	13 19 10	23 0 8	154.7
1935-36 (c) to 1939-40(d)	101,940	149,233	..	..	..	..	..
1940-41 (c)	101,940	119,167	221,107	14 19 4	17 10 0	32 9 4	116.9
(d)	111,918	157,164	..	..	..	..	..
1941-42 (c)	111,918	125,515	237,433	15 16 8	17 15 2	33 11 10	112.1
(d)	152,005	168,977	..	..	..	..	..
1942-43 (c)	152,005	134,927	286,932	21 5 11	18 18 1	40 4 0	88.8
(d)	214,442	125,557	..	..	..	..	..
1943-44 (c)	214,442	100,245	314,687	29 15 9	13 18 6	43 14 3	46.7
(d)	214,225	146,682	..	..	..	..	..
1944-45 (c)	214,225	117,111	331,336	29 9 8	16 2 4	45 12 0	54.7
(d)	188,483	155,271	..	..	..	..	..
	188,483	123,969	312,452	25 13 5	16 17 9	42 11 2	65.8

(a) The figures given for the years 1826 to 1939-40 represent the annual averages for the periods shown. The trade of the individual years will be found in Official Year Book No. 35 and earlier issues. From 1914-15 onwards the particulars relate to financial years. (b) Prior to 1906, ships' stores were included in the general exports. For value of such goods shipped on oversea vessels each year since 1935-36 see later table, § 11. (c) Recorded values. Imports, British currency; Exports, Australian currency. (d) British currency values.

In issues of the Official Year Book prior to No. 23 fluctuations in the value of the overseas trade of Australia for earlier years have been treated in some detail. The enhanced prices ruling for commodities and the peculiar conditions affecting Australian

trade were responsible for the high value of imports in the years following the 1914-19 War and these factors should be taken into consideration in making comparisons with earlier years.

In 1924-25 the total value of overseas trade was £318,454,000 represented by imports £157,143,000, and exports £161,311,000. So far as exports are concerned this figure is the highest recorded, but the total was exceeded in 1943-44 (£331,336,000). The figure for imports was exceeded in 1920-21, 1926-27, 1942-43, 1943-44 and 1944-45. Imports in 1924-25, however, included an exceptionally large quantity of bullion and specie valued at £10,543,000. In the three years ended 1928-29 imports fell but exports were well maintained and in 1929-30 both imports and exports declined substantially. The full effects of the economic depression and of certain restrictions imposed by the Government are reflected in the greatly diminished trade figures for 1930-31 and some years thereafter. The lowest level was recorded in 1931-32 when the total trade amounted to £130,556,000. Most of the Government restrictions were removed in 1932. Following a gradual improvement in 1933-34 and 1934-35 recovery was more rapid in the three years ended 1937-38 owing generally to higher prices for exports of primary products and the rising flow of imports. In 1937-38, however, export prices fell sharply and declined still further in 1938-39 when the value of exports fell nearly £14 million and total trade more than £25 million. In 1939-40 the value of trade rose by £41,546,000, exports increasing by £23,906,000 and imports by £17,640,000. In 1940-41, however, trade declined by over £18 million, imports decreasing by £8 million and exports by £10 million, mainly due to import restrictions and scarcity of shipping.

The outbreak of war in the Pacific in 1941 resulted in an enormous increase in the value of imports during 1941-42 and subsequent years. Imports in 1942-43 exceeded 1938-39 figures by approximately £112 millions. Fluctuating yearly increases in the value of exports were recorded during the same period, the average yearly value of exports being over £6 million more than in 1938-39.

(ii) *Excluding Gold.* The fluctuations in merchandise trade (including silver as merchandise) are shown more clearly in the following table, from which *all* gold movements have been excluded:—

OVERSEA TRADE : AUSTRALIA.

(EXCLUDING GOLD BULLION AND SPECIE.)

British Currency Values.

Year.	Imports excluding Gold.	Exports excluding Gold.	Total Trade excluding Gold.	Value per Inhabitant.			Percentage of Exports on Imports.
				Imports.	Exports.	Total Trade.	
	£'000. Stg.	£'000. Stg.	£'000. Stg.	£ s. d. Stg.	£ s. d. Stg.	£ s. d. Stg.	%
1938-39	99,384	97,839	197,223	14 6 11	14 2 6	28 9 5	98.4
1939-40	115,716	119,250	234,966	16 10 10	17 0 11	33 11 9	103.1
1940-41	108,709	107,810	216,519	15 7 7	15 5 1	30 12 8	99.2
1941-42	149,390	127,576	276,966	20 18 8	17 17 5	38 16 1	85.4
1942-43	213,155	100,241	313,396	29 12 2	13 18 6	43 10 8	47.0
1943-44	212,940	117,108	330,048	29 6 2	16 2 4	45 8 6	55.0
1944-45	187,351	123,969	311,320	25 12 9	17 1 4	42 14 1	66.2

2. *Balance of Trade.*—The table on page 345 shows the percentage of exports on imports (including gold) for five-yearly periods from 1826 to 1939-40 and for each year from 1940-41 to 1944-45, while the table above shows the percentage of exports on imports (excluding gold) for each year 1938-39 to 1944-45. Reference to the first-mentioned table shows that prior to the five-yearly period 1891-95 the balance of trade, with two exceptions due to temporary dislocations, had been on the side of

imports, while from that period to 1920-21 the position was reversed. During the subsequent five-yearly period ended 1925-26, there was an excess of imports, as was the case in each of the years 1926-27 to 1929-30. From 1930-31 to 1938-39 exports greatly exceeded imports. In 1939-40 and 1940-41 exports exceeded imports by £stg. 16.3 millions and £stg. 13.6 millions respectively, but for subsequent years imports greatly exceeded exports.

In recent years imports and exports of gold for monetary purposes have made the interpretation of the foregoing tables more difficult. In the following table, the balance of commodity trade, including the value of gold currently produced in Australia, has been separated from the monetary movement of gold:—

COMMODITY BALANCE OF TRADE AND MONETARY MOVEMENT OF GOLD.

British Currency Values.

Year.	A. Total Imports other than Gold. (Specie, Bullion and in Matte.)	B. Total Exports, other than Gold. (Specie, Bullion and in Matte.)	C. Gold produced in Australia.	D. Total of Mer- chandise Exports and Gold Production. B+C	E. Commodity Balance of Trade. D-A	F. Net Ex- ports of Gold (Specie, Bullion and in Matte) in excess of Production. F	G. Total Balance. E+F
	£'000,000	£'000,000	£'000,000	£'000,000	£'000,000	£'000,000	£'000,000
1910 ..	59.0	69.8	11.6	81.4	22.4	- 7.9	14.5
1911 ..	65.4	67.5	10.5	78.0	12.6	- 0.1	12.5
1912 ..	76.8	66.8	9.9	76.7	- 0.1	1.1	1.0
1913 ..	78.4	75.1	9.4	84.5	6.1	- 7.3	- 1.2
1914 (a) ..	39.0	36.5	4.4	40.9	1.9	- 3.7	- 1.8
1914-15 ..	64.0	58.0	8.5	66.5	2.5	- 6.3	- 3.8
1915-16 ..	77.2	64.2	7.7	71.9	- 5.3	2.3	- 3.0
1916-17 ..	76.0	86.3	6.6	92.9	16.9	4.8	21.7
1917-18 ..	60.8	75.0	5.8	80.8	20.0	- 0.9	19.1
1918-19 ..	95.0	106.8	5.4	112.2	17.2	- 5.6	11.6
1919-20 ..	68.9	144.3	5.4	149.7	50.8	0.1	50.9
1920-21 ..	163.8	126.8	4.7	131.5	-32.3	0.6	-31.7
1921-22 ..	103.0	124.3	3.8	128.1	25.1	- 0.3	24.8
1922-23 ..	131.7	115.6	3.3	118.9	-12.8	- 1.1	-13.9
1923-24 ..	140.6	116.7	3.2	119.9	-20.7	- 0.4	-21.1
1924-25 ..	146.7	160.4	2.8	163.2	16.5	-12.3	4.2
1925-26 ..	151.3	141.9	2.3	144.2	- 7.1	1.7	- 5.4
1926-27 ..	164.1	132.7	2.2	134.9	-29.2	8.6	-20.6
1927-28 ..	146.9	138.4	2.1	140.5	- 6.4	- 0.3	- 6.7
1928-29 ..	143.3	138.6	1.9	140.5	- 2.8	0.8	- 2.0
1929-30 ..	130.8	98.1	1.9	100.0	-30.8	24.7	- 6.1
1930-31 ..	60.6	77.2	2.2	79.4	18.8	9.7	28.5
1931-32 ..	44.1	76.3	3.6	70.9	35.8	5.3	41.1
1932-33 ..	56.9	78.8	4.6	83.4	26.5	12.3	38.8
1933-34 ..	59.5	91.1	5.7	96.8	37.3	1.0	38.3
1934-35 ..	72.5	82.6	5.9	88.5	16.0	0.5	16.5
1935-36 ..	83.6	99.1	7.4	106.5	22.9	1.3	24.2
1936-37 ..	90.6	118.3	9.0	127.3	36.7	0.3	37.0
1937-38 ..	111.8	112.7	10.2	122.9	11.1	0.7	11.8
1938-39 ..	99.4	97.5	11.7	109.2	9.8	0.3	10.1
1939-40 ..	115.7	119.2	14.1	133.3	17.6	- 1.3	16.3
1940-41 ..	108.7	107.7	13.1	120.8	12.1	1.4	13.5
1941-42 ..	149.4	126.9	11.7	138.6	-10.8	- 6.3	-17.1
1942-43 ..	213.2	100.2	7.8	108.0	-105.2	- 9.0	-114.2
1943-44 ..	212.9	117.0	5.7	122.7	-90.2	- 6.9	-97.1
1944-45 ..	187.4	123.9	5.5	129.4	-58.0	- 6.5	-64.5

(a) First six months only.

NOTE.—Since 1939-40, the export figures relate only to goods actually shipped. Under contracts with the British Government, Australia receives payment for some exportable commodities (e.g., wool, etc.) irrespective of when the goods are shipped. Payments for exportable goods will be somewhat larger than the recorded value of exports and payments relating to the balance of trade will be more favorable than is indicated by the figures above.

3. Balance of Payments.—The balance of visible trade, including the net movement of precious metals, does not present a complete picture of Australia's international transactions during each year. Allowance must also be made for unrecorded imports

and exports, for services rendered and received, and for international capital and interest transactions. The values of some of these items are known, and some of those remaining can be estimated with a sufficient measure of accuracy, but for many items it is difficult to make even a rough guess. A continuous investigation is being made into the values of these "invisible" items in the balance of payments.

§ 7. Direction of Oversea Trade.

1. Imports according to Country of Origin.—The following table shows the value (in British currency) of the imports into Australia during the years 1939-40 to 1944-45 of commodities stated to be the produce or manufacture of the undermentioned countries.

AUSTRALIAN IMPORTS : COUNTRIES OF ORIGIN.

(EXCLUDING GOLD BULLION, SPECIE AND IN MATTE.)

British Currency Values.

Country of Origin.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.	1944-45.
	£ Stg. '000.	£ Stg. '000.	£ Stg. '000.	£ Stg. '000.	£ Stg. '000.	£ Stg. '000.
United Kingdom	43,934	49,398	56,469	72,129	56,671	61,692
British Possessions—						
Canada	9,097	7,630	8,778	10,214	9,218	8,981
Ceylon	678	531	1,196	4,027	3,821	3,946
India	5,888	7,011	11,083	14,864	20,751	16,145
Malaya (British)	1,530	2,117	1,538	39	1	1
New Zealand	1,017	1,210	1,065	1,227	1,028	1,589
Pacific Islands—						
Nauru	533	189	65	..	..	..
Papua	373	254	21	79	240	383
Territory of New Guinea	192	261	186	7	89	599
Other Islands	347	59	322	62	41	105
Union of South Africa	438	685	1,084	1,568	715	572
Other British Possessions	2,795	3,864	4,312	5,112	4,218	4,056
Total, British Possessions	22,888	23,811	29,840	37,199	40,122	36,437
Total, British Countries	66,822	73,209	86,309	109,328	96,793	98,129
Foreign Countries—						
Belgium	1,047	81	4	..	..	..
China	743	549	373	16	40	4
France	967	93	5	15	..	2
Germany	1,130	162	24	3	2	3
Italy	757	123	..	1	13	..
Japan	5,795	3,600	426	4	..	..
Netherlands	792	136	14	1	..	..
Netherlands East Indies	9,829	8,173	9,871	404	56	22
Norway	499	30	1	..	..	..
Pacific Islands (Foreign)	56	375	338	496	413	244
Philippine Islands	126	93	51	..	..	..
Sweden	1,021	71	55	5	3	3
Switzerland	949	382	267	166	226	217
United States of America	20,122	17,394	44,792	93,524	104,018	72,877
Other Foreign Countries	2,367	1,895	4,410	6,280	7,493	13,131
Total Foreign Countries	46,209	33,157	60,636	100,918	112,176	86,503
Total (a)	113,031	106,366	146,945	210,246	208,969	184,632

(a) Excludes outside packages, £ Stg. '000—1939-40, 2,685; 1940-41, 2,343; 1941-42, 2,445; 1942-43, 2,909; 1943-44, 3,971; 1944-45, 2,719.

2. **Percentage of Imports from Various Countries.**—In view of the fluctuations in the total values of imports, it is somewhat difficult to ascertain from the preceding table the relative importance of the various countries in the import trade of Australia in successive war years. A better idea of the proportions of imports supplied by the various countries may be obtained from the following table of percentages.

AUSTRALIAN IMPORTS : PERCENTAGES FROM COUNTRIES OF ORIGIN.

(EXCLUDING GOLD BULLION, SPECIE AND IN MATTE.)

Country of Origin.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.	1944-45.
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
United Kingdom	38.87	46.44	38.43	34.47	27.12	33.41
British Possessions—						
Canada	8.05	7.17	5.97	4.88	4.41	4.86
Ceylon	0.60	0.50	0.81	1.93	1.83	2.14
India	5.21	6.59	7.54	7.10	9.93	8.75
Malaya (British)	1.35	1.99	1.05	0.02	..	..
New Zealand	0.90	1.14	0.72	0.59	0.49	0.86
Pacific Islands—						
Nauru	0.47	0.18	0.04	..	..	..
Papua	0.33	0.24	0.14	0.04	0.12	0.21
Territory of New Guinea	0.17	0.25	0.13	..	0.04	0.32
Other Islands	0.31	0.24	0.22	0.03	0.02	0.09
Union of South Africa ..	0.39	0.64	0.74	0.75	0.34	0.31
Other British Possessions..	2.47	3.44	2.94	2.44	2.02	2.20
Total, British Possessions	20.25	22.38	20.30	17.78	19.20	19.74
Total, British Countries	59.12	68.82	58.73	52.25	46.32	53.15
Foreign Countries—						
Belgium	0.92	0.08	..	..	..	..
China	0.66	0.52	0.26	0.01	0.02	..
France	0.86	0.09	..	0.01	..	..
Germany	1.01	0.15	0.02	..	..	..
Italy	0.67	0.12	..	..	0.01	..
Japan	5.13	3.38	0.29	..	..	..
Netherlands	0.70	0.13	0.01	..	..	..
Netherlands East Indies ..	8.70	7.68	6.72	0.19	0.03	0.01
Norway	0.44	0.03	..	..	..	..
Pacific Islands (Foreign) ..	0.05	0.35	0.23	0.24	0.20	0.13
Philippine Islands	0.11	0.09	0.04	..	..	..
Sweden	0.90	0.07	0.04	..	..	..
Switzerland	0.84	0.36	0.18	0.08	0.11	0.12
United States of America..	17.80	16.35	30.48	44.22	49.77	39.48
Other Foreign Countries ..	2.09	1.78	3.00	3.00	3.54	7.11
Total, Foreign Countries	40.88	31.18	41.27	47.75	53.68	46.85
Total	100	100	100	100	100	100

The table covers a period of war and for that reason the figures are abnormal. They show a considerable increase in the proportion of imports from the United States of America—the average percentage for which in the five years ended 1938–39 was 15.74—and a decrease for the United Kingdom—the average percentage for which in the five years ended 1938–39 was 42.53.

3. *Direction of Exports.*—The following table shows the value in Australian currency of commodity exports to the principal countries during the six years 1939–40 to 1944–45.

EXPORTS FROM AUSTRALIA TO VARIOUS COUNTRIES.

(EXCLUDING GOLD BULLION, SPECIE AND IN MATTE.)

Australian Currency Values.

Country of Destination.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.	1944-45.
	£A.'000.	£A.'000.	£A.'000.	£A.'000.	£A.'000.	£A.'000.
United Kingdom	95,943	57,582	43,255	36,792	40,670	52,119
British Possessions—						
Canada	3,438	4,030	3,778	2,392	3,681	3,797
Ceylon	933	824	1,063	3,571	6,969	6,840
Fiji	763	827	1,057	1,197	1,007	1,127
Hong Kong	859	1,132	824			
India	2,116	2,874	7,573	6,997	10,148	15,798
Malaya (British)	2,942	4,158	3,967	I		
Mauritius	144	85	322	292	567	673
New Zealand	6,507	7,693	6,852	7,798	7,820	7,086
Papua	439	568	932	14,006	6,465	299
Union of South Africa	973	1,459	2,499	1,444	1,052	1,327
Other British Possessions	2,900	7,844	24,955	9,629	15,942	22,139
Total, British Possessions	22,014	31,494	53,822	47,327	53,651	59,086
Total, British Countries	117,957	89,076	97,077	84,119	94,321	111,205
Foreign Countries—						
Belgium	851	..	..	288	223	955
Chile and Peru .. ..	..	..	..	..	..	..
China	1,426	3,514	232	..	..	..
Manchuria, including Kwantung Peninsula	111	405	143	I	..	..
Egypt	1,208	5,737	6,479	1,581	5,594	3,156
France	11,778	12	..	..	..	358
Germany	321	..	..	..	..	..
Italy	188	11	..	..	1,489	2,083
Japan	5,463	5,364	852	..	..	..
Netherlands	326	..	..	..	..	..
Netherlands East Indies	2,041	3,057	2,901	7	29	67
Norway	64	..	..	..	..	..
Pacific Islands (Foreign)	518	606	1,175	1,368	1,528	1,679
Philippine Islands	560	489	222	..	..	2
Sweden	149	..	..	..	..	..
United States of America	4,939	24,348	48,685	33,543	30,934	30,766
U.S.S.R. (Russia) .. ..	..	..	930	489	142	42
Other Foreign Countries	1,774	2,424	1,093	1,661	2,422	2,958
Total, Foreign Countries	31,717	45,967	62,712	38,938	42,361	42,066
Unrecorded exports (estimated)	..	..	..	2,500	10,000	2,000
Total	149,674	135,043	159,789	125,557	146,682	155,271

4. *Percentage of Exports to Various Countries.*—In consequence of the fluctuations in the total values of exports, the relative importance during the war years of various countries as markets for Australian produce is shown more clearly by the following table of percentages.

There was a very marked increase in the proportion of exports to the United States of America and a decrease in the proportion to the United Kingdom, the respective percentages for which in the five years ended 1938-39 were 3.97 and 52.25.

EXPORTS FROM AUSTRALIA : PERCENTAGES TO VARIOUS COUNTRIES.

(EXCLUDING GOLD BULLION, SPECIE AND IN MATTE.)

Country of Destination.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.	1944-45.
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
United Kingdom	64.10	42.64	27.07	29.30	27.72	33.57
British Possessions—						
Canada	2.30	2.98	2.36	1.91	2.51	2.45
Ceylon	0.62	0.61	0.67	2.85	4.75	4.41
Fiji	0.51	0.61	0.66	0.95	0.68	0.73
Hong Kong	0.57	0.84	0.52	..	..	..
India	1.41	2.13	4.74	5.57	6.92	10.18
Malaya (British) ..	1.97	3.08	2.48	..	..	..
Mauritius	0.10	0.06	0.20	0.23	0.39	0.43
New Zealand	4.35	5.70	4.29	6.21	5.33	4.56
Papua	0.29	0.42	0.58	11.16	4.41	0.19
Union of South Africa ..	0.65	1.08	1.56	1.15	0.72	0.85
Other British Possessions..	1.94	5.81	15.62	7.67	10.87	14.25
Total, British Possessions	14.71	23.32	33.68	37.70	36.58	38.05
Total, British Countries	78.81	65.96	60.75	67.00	64.30	71.62
Foreign Countries—						
Belgium	0.57	..	..	..	..	..
Chile and Peru .. ..	..	..	..	0.23	0.15	0.62
China	0.95	2.60	0.15	..	..	..
Manchuria, including Kwantung Peninsula ..	0.07	0.30	0.09	..	..	..
Egypt	0.81	4.25	4.05	1.26	3.81	2.03
France	7.87	0.01	..	..	..	0.23
Germany	0.21	..	..	..	..	..
Italy	0.13	0.01	..	..	1.02	1.34
Japan	3.65	3.97	0.53	..	..	..
Netherlands	0.22	..	..	..	..	..
Netherlands East Indies ..	1.36	2.26	1.82	..	0.02	0.04
Norway	0.04	..	..	..	..	..
Pacific Islands (Foreign) ..	0.35	0.45	0.74	1.09	1.04	1.68
Philippine Islands	0.37	0.36	0.14	..	..	..
Sweden	0.10	..	..	..	..	..
United States of America..	3.30	18.03	30.47	26.72	21.09	19.82
U.S.S.R. (Russia) .. ..	..	..	0.58	0.39	0.10	0.03
Other Foreign Countries ..	1.19	1.80	0.68	1.32	1.65	1.90
Total, Foreign Countries	21.19	34.04	39.25	31.01	28.88	27.09
Unrecorded exports .. ..	..	..	..	1.99	6.82	1.29
Total	100	100	100	100	100	100

5. Balance of Trade with Principal Countries.—In the following table a comparison is made in British currency values of the total Australian trade in merchandise (excluding bullion and specie) with principal countries during the years 1937-38 and 1938-39.

Particulars for subsequent years are not shown owing to dislocation of trade between countries consequent on war-time conditions.

BALANCE OF AUSTRALIAN TRADE WITH PRINCIPAL COUNTRIES.

(EXCLUDING BULLION AND SPECIE.)

British Currency Values.

Country.	Imports from— (a)		Exports to—		Excess of Exports.	
	1937-38.	1938-39.	1937-38.	1938-39.	1937-38.	1938-39.
	£Stg.'000.	£Stg.'000.	£Stg.'000.	£Stg.'000.	£Stg.'000.	£Stg.'000.
United Kingdom	46,226	40,420	58,309	53,252	12,083	12,832
Canada	8,045	7,724	1,796	1,592	— 6,249	— 6,132
India	3,078	2,870	745	1,550	— 2,333	— 1,320
New Zealand	1,707	1,769	5,671	5,330	3,964	3,561
Other British Countries ..	4,567	4,979	6,215	5,440	1,648	461
Total, British Countries ..	63,623	57,762	72,736	67,164	9,113	9,402
Belgium	1,141	982	4,560	4,428	3,419	3,446
China	602	462	492	2,413	— 110	1,951
France	965	1,028	7,725	7,488	6,760	6,460
Germany	4,171	4,131	3,500	2,112	— 671	— 2,019
Italy	845	685	1,502	967	657	282
Japan	5,349	4,093	4,711	3,885	— 638	— 208
Netherlands East Indies ..	7,531	7,120	1,169	1,096	— 6,362	— 6,024
United States of America ..	17,759	14,647	2,695	2,877	— 15,064	— 11,770
Other Foreign Countries ..	7,193	6,093	13,192	4,603	5,999	— 1,490
Total, Foreign Countries ..	45,556	39,241	39,546	29,869	— 6,010	— 9,372

(a) Excludes outside packages.

The balance of trade with single countries is of little significance, since in the first place, there is still a fair proportion of Australian produce distributed through the United Kingdom either immediately, by transshipment or re-sale, or ultimately, by incorporation in manufactures. Further, in very many cases international balances are equated directly by services or indirectly by exchange of goods between several countries.

6. Principal Imports and Exports, Countries.—The total value of imports from and exports to each of the more important British and foreign countries during 1938-39, together with brief particulars of the principal commodities interchanged with such countries, will be found in the Official Year Book, No. 33, pp. 776-781.

§ 8. Classified Summary of Australian Oversea Trade with the United Kingdom.

1. Imports.—The following table shows, according to statistical classes, the value of imports into Australia of United Kingdom origin during the years 1941-42 to 1944-45 compared with the year 1938-39 :—

IMPORTS INTO AUSTRALIA OF UNITED KINGDOM ORIGIN: CLASSES.

British Currency Values.

Classes.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£ Stg.	£ Stg.	£ Stg.	£ Stg.	£ Stg.
I. Animal foodstuffs, etc. ..	300,283	12,073	1,748	5,205	871
II. Vegetable foodstuffs; non-alcoholic beverages, etc. ..	187,949	38,169	10,520	9,049	6,998
III. Alcoholic liquors, etc. ..	613,874	333,252	130,061	106,837	338,542
IV. Tobacco, etc. ..	19,231	25,072	180,488	8,294	8,476
V. Live animals ..	47,914	4,469	..	1,689	21,268
VI. Animal substances, etc. ..	36,266	20,462	7,577	16,272	11,678
VII. Vegetable substances, etc. ..	211,174	276,109	214,515	206,590	200,791
VIII. Apparel, textiles, etc. ..	10,033,422	18,646,582	13,313,113	13,466,230	18,459,130
IX. Oils, fats and waxes ..	134,837	75,214	21,799	23,304	20,454
X. Paints and varnishes ..	383,043	456,442	244,592	290,830	327,778
XI. Stones and minerals, etc. ..	278,568	276,671	228,853	190,313	149,136
XII. Metals, metal manufactures, and machinery ..	18,246,658	23,439,897	25,613,029	24,440,334	21,898,686
XIII. Rubber and leather, etc. ..	247,671	385,072	122,164	89,644	116,452
XIV. Wood and wicker, etc. ..	85,129	58,576	26,677	20,770	24,436
XV. Earthenware, etc. ..	946,220	1,788,158	791,569	661,377	989,838
XVI. Paper and stationery ..	2,945,640	2,430,143	1,032,663	1,893,479	2,147,347
XVII. Jewellery, etc. ..	275,301	494,214	185,351	136,593	120,373
XVIII. Optical, surgical, and scientific instruments ..	523,381	885,745	591,998	661,872	616,868
XIX. Drugs, chemicals, etc. ..	2,288,387	2,850,552	2,472,473	2,470,815	2,497,609
XX. Miscellaneous (a) ..	2,614,335	3,972,035	26,339,907	11,971,809	13,735,147
XXI. Gold and silver; and bronze specie ..	14,307	1,451	555	168	..
Total ..	40,433,590	56,470,358	72,129,652	56,671,474	61,691,880

(a) Includes Arms, Ammunition and Explosives.

2. Exports.—In the following table the exports from Australia to the United Kingdom are shown in classes according to the same classification as for imports.

EXPORTS FROM AUSTRALIA TO THE UNITED KINGDOM: CLASSES.

Australian Currency Values.

Classes.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£ A.	£ A.	£ A.	£ A.	£ A.
I. Animal foodstuffs, etc. ..	24,483,853	17,042,066	15,517,679	12,580,752	14,393,544
II. Vegetable foodstuffs; non-alcoholic beverages, etc. ..	14,369,098	4,813,498	3,617,103	2,118,102	2,836,785
III. Alcoholic liquors, etc. ..	906,358	64,151	24,501	79,411	283,641
IV. Tobacco, etc. ..	1,196	252	512	996	..
V. Live animals ..	1,754	..	2	..	10
VI. Animal substances, etc. ..	19,475,233	15,760,733	13,787,237	19,006,024	23,673,527
VII. Vegetable substances, etc. ..	109,770	128,880	349,856	615,814	680,356
VIII. Apparel, textiles, etc. ..	40,909	1,990	24,805	109,708	145,101
IX. Oils, fats and waxes ..	179,408	231,127	67,910	278,534	316,619
X. Paints and varnishes ..	3,412	..	..	..	476
XI. Stones and minerals, etc. ..	849,994	440,956	392,111	747,507	918,690
XII. Metals, metal manufactures, and machinery ..	5,291,304	3,829,280	2,510,794	3,644,661	5,361,348
XIII. Rubber and leather, etc. ..	422,348	369,834	279,527	261,414	452,604
XIV. Wood and wicker, etc. ..	206,537	26,769	5,972	5,801	114,112
XV. Earthenware, etc. ..	3,679	402	..	20	407
XVI. Paper and stationery ..	324,664	3,500	3,021	10,236	7,643
XVII. Jewellery, etc. ..	31,626	28,925	147	324	19,169
XVIII. Optical, surgical, and scientific instruments ..	16,096	450	315	819	4,070
XIX. Drugs, chemicals, etc. ..	108,562	143,261	76,466	44,512	72,042
XX. Miscellaneous (a) ..	166,862	365,232	133,886	1,165,324	2,832,515
XXI. Gold and silver; and bronze specie ..	2,018,368	3,760	..	..	..
Total (b) ..	68,716,031	43,255,066	36,791,844	40,669,959	52,118,859

(a) Includes Arms, Ammunition and Explosives.

(b) Estimated British currency value, 1938-39 £ Stg. 54,866,278 1941-42, £ Stg. 34,534,983; 1942-43, £ Stg. 29,374,725; 1943-44, £ Stg. 32,471,025; 1944-45, £ Stg. 41,611,863.

3. Imports of Principal Articles.—The following table shows the value of the principal articles imported into Australia from the United Kingdom during the years 1941-42 to 1944-45 compared with the year 1938-39. The articles are shown in the order in which they appear in the detailed classification.

PRINCIPAL COMMODITIES IMPORTED OF UNITED KINGDOM ORIGIN :
AUSTRALIA.

British Currency Values.

Article.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£ Stg.	£ Stg.	£ Stg.	£ Stg.	£ Stg.
Whisky	552,521	295,818	106,511	97,316	338,231
Fibres	38,569	63,760	62,605	72,336	74,171
Hides and skins	21,214	4,392	1,733	8,708	1,018
Seeds	22,949	1,622	4,489	8,052	1,599
Socks and stockings	34,724	34,918	3,151	166	1,024
Gloves	42,551	469,271	38,132	147	7,267
Hats and caps	74,937	59,118	3,430	135	1,002
Trimmings and ornaments	101,668	257,179	100,628	176,403	246,091
Other apparel and attire	446,409	437,496	171,803	48,030	132,825
Carpets and carpeting	934,428	966,270	75,612	893	26,347
Floorcloths and linoleums	472,638	588,398	42,777	2,914	395
Piece Goods—					
Canvas and duck	418,387	530,942	705,701	1,108,676	835,777
Cotton and linen	3,661,106	5,067,802	3,424,048	3,273,193	5,795,343
Silk and artificial silk	849,312	3,797,959	4,089,012	4,766,571	6,307,972
Woollen or containing wool	220,904	774,182	156,356	295,102	239,595
All other piece goods	796,862	1,526,669	933,583	673,142	416,535
Sewing silks, cottons, etc.	469,556	684,632	666,035	718,335	771,012
Bags and sacks	5,251	6,270	7,631	22,882	9,917
Yarns—					
Artificial silk	203,337	1,335,698	1,045,015	1,176,214	1,265,350
Cotton	366,072	557,304	599,794	572,340	1,004,479
Woollen	47,044	51,087	7,981	5,640	22,169
Other	42,628	42,075	16,938	23,947	29,096
Electrical machinery and appliances	2,630,965	1,815,806	1,895,089	1,927,040	2,985,766
Electrical cable and wire, covered	1,113,605	838,056	752,866	533,589	521,806
Agricultural machinery	39,950	18,001	99,946	45,304	13,773
Metal-working machinery	754,904	863,143	1,620,511	519,429	214,441
Motive-power machinery	899,085	1,374,406	1,550,790	1,412,808	1,691,243
Iron and Steel—					
Pipes and tubes	415,349	91,805	90,335	129,822	97,215
Plate and sheet	2,127,177	1,008,966	151,612	222,024	253,685
Cutlery and platedware	455,311	613,462	391,301	378,111	410,214
Tools of trade	390,664	487,438	495,458	541,954	460,172
Motor cars, chassis, bodies, and parts	2,795,593	190,111	78,533	86,944	189,169
Rubber and rubber manufactures	175,707	272,015	75,656	50,112	90,251
Crockery	403,010	738,380	410,546	353,279	564,876
Glass and glassware	290,661	659,806	274,102	228,365	317,914
Paper, printing	824,191	179,941	71,828	39,980	58,447
Stationery and paper manufactures	1,413,252	1,265,856	928,504	1,308,262	1,523,429
Cinematograph films	56,940	44,105	27,244	42,450	68,909
Drugs, chemicals, and fertilizers	2,288,387	2,850,552	2,472,473	2,470,815	2,497,609
Arms and explosives	953,406	2,763,398	24,806,077	11,137,747	12,905,083
Musical instruments, pianos, etc.	57,198	51,834	9,361	2,902	4,701
All other articles	12,526,048	22,775,615	23,563,435	22,184,395	19,236,052
Total Imports	40,433,590	56,470,358	72,129,652	56,671,474	61,691,880

4. Exports of Principal Articles of Australian Produce.—(i) *Quantities.* The following table shows the quantities of the principal articles of Australian produce exported to the United Kingdom during the years 1941-42 to 1944-45 compared with the year 1938-39. The articles are shown in the order in which they appear in the detailed classification.

PRINCIPAL COMMODITIES EXPORTED TO THE UNITED KINGDOM : QUANTITIES, AUSTRALIA.

Article.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
Butter centl.	2,170,515	1,049,717	1,104,751	934,453	825,048
Cheese "	347,991	154,498	153,009	83,945	63,210
Eggs in shell doz.	10,069,570	6,158,850	..	..	..
Beef centl.	2,477,128	759,797	34,471	7,511	120,116
Lamb "	1,557,485	1,612,612	1,837,542	1,362,945	1,040,786
Mutton "	253,074	53,361	161,947	202,577	170,156
Pork "	301,204	317,170	8,702	139,482	370,045
Meats, preserved in tins "	116,553	242,259	268,336	108,925	148,973
Milk and cream "	28,806	23,965	22,455	22,145	23,956
Fruits, dried "	1,173,664	849,543	820,658	1,097,420	1,019,637
" fresh "	2,023,970	..	..	..	55,326
Barley "	1,027,052	..	..	..	..
Wheat "	19,340,770	4,139,927	5,392,210	192,317	4
Flour "	2,379,151	209,601	465,827	..	659,899
Sugar (cane) cwt.	7,829,940	1,528,320	287,420	40	1,620
Wine gal.	3,507,410	212,585	80,538	271,651	700,514
Wool (in terms of greasy wool) centl.	4,125,467	1,987,649	1,992,134	2,490,046	3,154,665
Pearl-shell cwt.	20,877	240	..	..	..
Tallow (unrefined) "	167,695	196,282	12,611	145,565	160,771
Timber, undressed, including logs (a) sup. ft.	13,188,491	1,605,288	162,594	22,705	3,199,671
Soap centl.	9,746	..	..	127	3,022

(a) Excludes undressed timber not measured in super. ft.

(ii) *Values.* The values of the principal articles of Australian produce exported to the United Kingdom during the years 1941-42 to 1944-45 compared with the year 1938-39 are given in the table hereunder :—

PRINCIPAL COMMODITIES EXPORTED TO THE UNITED KINGDOM : VALUES, AUSTRALIA.

Australian Currency Values.

Article.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£ A.	£ A.	£ A.	£ A.	£ A.
Butter "	12,127,260	6,379,686	7,004,136	6,049,502	7,355,003
Cheese "	1,019,681	525,324	546,567	312,213	232,588
Eggs in shell "	631,976	391,294	..	..	..
Meats "	10,581,118	8,626,119	7,342,013	6,093,291	6,450,514
Milk and cream "	88,116	85,616	88,276	91,861	95,245
Fruits, dried "	2,045,646	1,480,921	1,352,409	2,037,444	2,033,587
" fresh "	1,400,613	..	..	..	69,158
" preserved in liquid "	1,041,385	..	..	248	159,785
Barley "	278,026	..	..	..	..
Wheat "	4,443,013	1,398,607	1,824,331	66,400	2
Flour "	705,518	82,556	224,406	..	353,685
Sugar (cane) "	3,685,761	992,134	208,389	57	2,490
Wine "	896,059	63,172	24,501	79,136	233,903
Hides and skins "	813,201	339,706	192,786	528,124	685,845
Wool "	18,513,175	15,399,458	13,593,272	18,475,758	22,982,119
Pearl-shell "	90,777	2,220	..	..	..
Tallow (unrefined) "	137,464	184,162	19,732	219,919	252,592
Leather "	320,322	368,372	279,527	261,370	451,260
Timber, undressed, including logs (a) "	152,391	19,521	2,033	1,035	90,280
Soap "	21,489	..	5	636	5,914
Gold "	1,990,948	..	..	..	..
Silver "	21,794	3,760	..	..	..
All other articles "	7,386,780	6,855,377	4,075,526	6,426,952	10,666,929
Total Exports (Australian Produce) (b) "	68,393,916	43,198,005	36,777,909	40,643,946	52,060,899

(a) Excludes undressed timber not measured in super. ft. (b) Estimated British currency value—1938-39, £ Stg. 54,609,099; 1941-42, £ Stg. 34,489,425; 1942-43, £ Stg. 29,363,600; 1943-44, £ Stg. 32,450,256; 1944-45, £ Stg. 41,565,588.

§ 9. Trade with Eastern Countries.

1. **Principal Articles Exported.**—The following table shows the value of exports of Australian and other produce from Australia to Eastern countries during the years 1936-37 to 1940-41. The countries concerned in this trade were Borneo (British), Burma, Ceylon, China, French Indo-China, Hong Kong, India, Japan, Korea, Kwantung Peninsula, Malaya (British), Manchuria, Netherlands East Indies, Philippine Islands, Siam, Timor (Portuguese), and French and Portuguese Possessions in India. The outbreak of war with Japan in December, 1941 resulted in the cessation of trade with Eastern countries, except Ceylon and India. The export trade with Eastern countries rose substantially during 1934-35 and 1935-36 as a result of increased shipments of wool, flour, wheat and minerals. The exports in 1935-36 were valued at £25,532,518, the highest figure recorded since 1928-29. In 1936-37 the value of exports to Eastern countries decreased by more than £8 million largely as the result of the heavy reduction in the purchases of wool by Japan; wheat shipments to Japan and China also declined in value by nearly £2 million during the year. The value of exports decreased still further in 1937-38 and again a decline in the purchase of wool by Japan coupled with the recession in wool values was the principal contributing factor. Mainly owing to heavier shipments of wheat, the exports increased by more than £1 million in 1938-39. The outbreak of war in Europe with the further possibility of war with Japan resulted in substantial increases in the value of exports to Eastern countries during 1939-40 and 1940-41, particularly to Ceylon, Burma, India, Hong Kong, Malaya (British), China and Netherlands East Indies. The supply of foodstuffs, clothing, etc. to the garrison forces stationed in the countries mentioned above was largely responsible for the increase of approximately £6½ million in the value of exports during the year 1940-41 as compared with the year 1938-39.

TOTAL EXPORTS FROM AUSTRALIA TO EASTERN COUNTRIES.

Australian Currency Values.

Article.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£ A.	£ A.	£ A.	£ A.	£ A.
Biscuits	41,114	34,001	37,353	53,971	102,292
Butter	640,544	622,195	588,393	749,348	903,523
Cheese	39,647	39,014	43,555	90,695	301,420
Coal	94,821	149,064	125,740	85,181	61,661
Fruits—					
Fresh	155,093	170,947	166,076	167,618	144,187
Dried and preserved	45,116	46,421	42,981	66,350	141,715
Grain and pulse—					
Wheat	1,105,648	935,842	2,402,855	1,791,453	1,787,013
Flour	2,582,600	3,090,681	3,036,957	2,610,781	5,522,705
Other (prepared and unprepared)	129,050	101,583	70,283	525,484	228,027
Hay, chaff, and compressed fodder	25,111	13,553	16,156	21,466	27,254
Horses	126,518	97,525	85,895	56,601	64,950
Infants' and invalids' food	145,306	171,427	193,909	141,246	69,354
Iron ore	103,974	48,614	51,477		
Iron and steel (scrap)	217,112	214,463	283,302	302,468	179,136
Jams and jellies	49,178	46,143	44,651	87,978	141,123
Lard and refined animal fats	40,738	34,432	26,248	35,360	36,416
Lead, pig	138,237	80,206	13,350	194,080	168,943
Leather	173,761	181,723	134,319	221,476	359,924
Meats—					
Bacon and hams	92,952	95,437	94,640	220,741	330,117
Other meats	253,450	322,298	274,015	436,503	885,074
Milk and cream	611,021	662,234	436,472	770,997	966,756
Pearl-shell and trochus-shell	59,696	37,878	42,425	41,260	12,296
Sandalwood	106,448	36,676	42,330	52,374	61,960
Skins, hoofs, horns, bones, and sinews	185,803	339,223	176,055	136,150	28,359
Tallow (unrefined)	174,981	218,591	156,105	222,729	169,963
Timber (undressed)	148,753	143,690	62,893	72,775	34,289
Wool	7,860,278	4,367,877	4,180,914	4,605,462	5,094,295
Zinc—					
Bars, blocks, ingots, etc.	937,474	390,939	597,366	260,540	153,314
Concentrates			14,895	152,930	93,079
Other merchandise	654,608	898,231	1,393,170	2,929,251	4,310,392
Total merchandise	16,939,932	13,591,810	14,834,785	17,121,218	22,385,537
Specie, and gold and silver bullion	546,473	610,518	933,965	63,359	110
Total Exports (a)	17,485,505	14,202,328	15,768,750	17,184,577	22,385,647

(a) Estimated British currency value—1936-37, £ Stg. 13,960,483; 1937-38, £ Stg. 11,339,184; 1938-39, £ Stg. 12,571,315; 1939-40, £ Stg. 13,720,221; 1940-41, £ Stg. 17,872,772.

2. *Destination of Exports of Merchandise.*—The next table shows the destination of merchandise exported to Eastern countries during the five years ended 1940-41:—

EXPORTS OF MERCHANDISE FROM AUSTRALIA TO EASTERN COUNTRIES.

Australian Currency Values.

Country of Destination.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£ A.	£ A.	£ A.	£ A.	£ A.
China	842,963	616,520	3,022,571	1,426,185	3,513,913
Hong Kong	803,010	1,048,833	475,263	858,943	1,132,375
India, Burma and Ceylon	1,468,432	1,467,340	2,423,663	3,088,797	3,877,573
Japan	9,705,738	5,900,098	4,865,469	5,462,989	5,364,015
Malaya (British)	1,727,956	2,063,740	1,911,007	2,941,601	4,158,474
Manchuria, including Kwantung Peninsula	142,427	190,747	63,450	110,992	404,871
Netherlands East Indies	1,395,183	1,464,379	1,373,197	2,040,491	3,056,429
Philippine Islands	666,733	619,504	488,893	560,391	488,363
Thailand (Siam)	118,291	117,382	119,494	156,602	193,025
Other Eastern Countries	68,299	103,267	81,778	474,137	196,497
Total (a)	16,939,032	13,591,810	14,834,785	17,121,218	22,385,537

(a) Estimated British currency value—1936-37, £ Stg. 13,524,177; 1937-38, £ Stg. 10,851,748; 1938-39, £ Stg. 11,844,143; 1939-40, £ Stg. 13,669,635; 1940-41, £ Stg. 17,872,684.

3. *Imports of Merchandise from Eastern Countries.*—The values of imports into Australia from Eastern countries during the years 1936-37 to 1940-41 are shown in the following table. The principal commodities imported in 1940-41, according to the countries of origin, were:—Ceylon—Tea, £456,674; India—Bags and Sacks, £2,958,415; Cotton and Linen piecegoods, £722,076; Hessians, £672,487; Japan—Silk Piece goods, £1,048,986; Cotton and Linen Piece goods, £882,057; Raw Silk, £558,860; Netherlands East Indies—Petroleum Spirit, £2,763,583; Tea, £2,291,324; Residual Oil, £1,026,315; Petroleum crude, £654,485; Kerosene, £433,578.

IMPORTS OF MERCHANDISE INTO AUSTRALIA FROM EASTERN COUNTRIES.

British Currency Values.

Country of Origin.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£ Stg.	£ Stg.	£ Stg.	£ Stg.	£ Stg.
China	683,742	601,870	461,559	742,576	548,622
Hong Kong	40,143	37,022	35,567	166,884	108,957
India, Burma and Ceylon	3,986,266	3,988,581	3,736,288	6,618,161	7,669,664
Japan	4,004,465	5,349,086	4,093,191	5,794,484	3,600,304
Malaya (British)	852,282	1,022,899	902,419	1,530,402	2,117,279
Manchuria, including Kwantung Peninsula	20,853	16,106	14,887	15,274	10,256
Netherlands East Indies	6,176,385	7,530,509	7,119,785	9,829,274	8,173,584
Philippine Islands	110,231	123,466	120,774	126,018	93,404
Thailand (Siam)	2,609	6,870	3,010	3,545	2,817
Other Eastern Countries	42,039	143,047	190,109	319,940	216,480
Total	15,919,015	18,819,456	16,677,589	25,146,558	22,541,367

By comparison with footnote (a) of the previous table, the balance of trade with Eastern countries can be ascertained and shows an excess of imports into Australia during the five years under review.

§ 10. Classified Summary of Australian Oversea Trade.

1. Imports.—The following table shows, according to statistical classes, the value of imports into Australia during each of the years 1941-42 to 1944-45 compared with the year 1938-39 :—

IMPORTS INTO AUSTRALIA: CLASSES.

British Currency Values.

Classes.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£ Stg.	£ Stg.	£ Stg.	£ Stg.	£ Stg.
I. Animal foodstuffs, etc. ..	1,599,827	804,512	843,054	687,637	1,099,037
II. Vegetable foodstuffs; non-alcoholic beverages, etc. ..	3,957,780	5,377,590	6,347,945	4,608,803	5,711,169
III. Alcoholic liquors, etc. ..	719,967	345,403	152,094	112,156	345,932
IV. Tobacco, etc. ..	1,863,887	827,058	1,567,335	4,263,600	3,097,437
V. Live animals ..	182,809	32,011	6,313	31,414	76,552
VI. Animal substances, etc. ..	1,942,284	764,212	623,888	512,521	671,462
VII. Vegetable substances, etc. ..	2,596,939	5,208,743	4,638,171	4,875,432	6,468,027
VIII. Apparel, textiles, etc. ..	17,756,098	28,711,895	25,875,131	33,854,203	39,783,016
IX. Oils, fats and waxes ..	8,697,751	14,232,412	15,340,930	20,831,274	18,120,987
X. Paints and varnishes ..	580,745	688,895	447,433	439,849	491,755
XI. Stones and minerals, etc. ..	900,904	1,240,710	1,397,383	1,432,351	1,212,434
XII. Metals, metal manufactures, and machinery ..	31,274,421	62,997,629	88,075,590	94,475,705	65,942,889
XIII. Rubber and leather, etc. ..	1,689,598	2,773,486	1,975,832	2,661,609	1,593,817
XIV. Wood and wicker, etc. ..	2,079,981	735,666	473,483	612,488	1,213,508
XV. Earthenware, etc. ..	1,864,984	1,913,493	896,505	779,497	1,144,071
XVI. Paper and stationery ..	6,185,576	3,804,193	2,040,171	4,509,749	5,721,234
XVII. Jewellery, etc. ..	1,431,605	736,926	468,902	515,187	434,631
XVIII. Optical, surgical, and scientific instruments ..	1,600,583	1,898,937	1,554,692	1,518,080	1,669,879
XIX. Drugs, chemicals, etc. ..	5,598,553	6,101,337	5,272,355	5,855,242	5,709,390
XX. Miscellaneous (a) ..	6,788,858	10,140,066	54,103,494	27,452,004	25,537,315
XXI. Gold and silver; and bronze specie ..	2,843,202	2,649,103	2,335,538	4,195,612	2,438,587
Total ..	102,156,352	152,004,900	214,442,239	214,224,533	188,483,095

(a) Includes Arms, Ammunition and Explosives.

2. Exports.—In the following table the exports from Australia are shown according to the same classification as for imports, distinguishing (A) Australian produce; (B) Other produce (re-exports); and (C) Total exports.

EXPORTS FROM AUSTRALIA: CLASSES.

Australian Currency Values.

Classes.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£ A.	£ A.	£ A.	£ A.	£ A.
I. Animal foodstuffs, etc. ..	27,222,912	27,952,144	23,297,024	24,649,575	27,920,019
II. Vegetable foodstuffs; non-alcoholic beverages, etc. ..	25,532,970	19,632,959	16,207,154	26,440,041	28,679,708
III. Alcoholic liquors, etc. ..	1,158,424	2,524,203	1,297,352	1,341,991	1,820,293
IV. Tobacco, etc. ..	237,948	761,831	633,114	840,176	761,255
V. Live animals ..	197,081	97,842	52,603	46,180	50,016
VI. Animal substances, etc. ..	47,192,519	64,508,037	48,153,261	52,603,154	56,194,696
VII. Vegetable substances, etc. ..	297,864	489,436	531,046	942,244	983,419
VIII. Apparel, textiles, etc. ..	446,032	7,951,118	2,420,331	2,804,815	1,663,471
IX. Oils, fats and waxes ..	611,633	1,288,888	612,888	1,580,774	1,347,008
X. Paints and varnishes ..	173,399	205,017	182,103	108,686	103,022
XI. Stones and minerals, etc. ..	2,667,077	1,739,451	1,937,452	2,468,312	2,538,073
XII. Metals, metal manufactures, and machinery ..	9,510,802	17,024,596	7,057,504	7,133,273	11,281,077
XIII. Rubber and leather, etc. ..	745,190	1,641,627	997,791	934,854	1,006,184
XIV. Wood and wicker, etc. ..	1,066,288	901,458	467,274	347,404	475,596
XV. Earthenware, etc. ..	209,637	340,942	156,139	183,235	320,869
XVI. Paper and stationery ..	364,928	403,703	456,685	365,802	461,182
XVII. Jewellery, etc. ..	105,803	107,383	32,560	108,239	84,716
XVIII. Optical, surgical, and scientific instruments ..	150,709	213,246	347,555	158,983	254,515
XIX. Drugs, chemicals, etc. ..	717,667	1,467,745	1,048,359	1,136,741	1,521,539
XX. Miscellaneous (a) ..	915,711	8,205,719	14,452,494	8,324,000	12,128,839
XXI. Gold and silver; and bronze specie ..	15,951,167	9,393,714	3,300	3,366	9,611
Unrecorded Exports (Estimated) ..	..	..	2,500,000	10,000,000	2,000,000
Total (b) ..	135,475,761	166,851,189	122,849,989	142,521,845	151,605,108

(a) Includes Arms, Ammunition and Explosives. (b) Estimated British currency value—1938-39, £ Stg. 108,188,167; 1941-42, £ Stg. 133,228,789; 1942-43, £ Stg. 98,083,823; 1943-44, £ Stg. 113,789,895; 1944-45, £ Stg. 121,042,002.

EXPORTS FROM AUSTRALIA: CLASSES—continued.

Australian Currency Values.

Classes.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
B. OTHER PRODUCE: RE-EXPORTS.					
	£ A.	£ A.	£ A.	£ A.	£ A.
I. Animal foodstuffs, etc. ..	28,537	28,660	148,355	196,297	196,055
II. Vegetable foodstuffs; non-alcoholic beverages, etc. ..	66,886	200,351	136,668	177,303	171,050
III. Alcoholic liquors, etc. ..	42,820	121,746	23,337	12,391	14,591
IV. Tobacco, etc. ..	112,997	79,417	43,492	22,745	58,407
V. Live animals ..	19,687	16,330	4,154	2,715	724
VI. Animal substances, etc. ..	136,279	15,074	15,609	22,552	12,492
VII. Vegetable substances, etc. ..	9,092	22,048	11,720	8,732	4,377
VIII. Apparel, textiles, etc. ..	222,819	352,591	173,090	123,435	657,184
IX. Oils, fats and waxes ..	101,711	378,416	1,570,395	2,861,018	2,051,608
X. Paints and varnishes ..	4,853	4,120	2,287	687	1,047
XI. Stones and minerals, etc. ..	2,443	825	4,141	3,644	8,359
XII. Metals, metal manufactures, and machinery ..	347,549	306,468	216,505	172,552	117,646
XIII. Rubber and leather, etc. ..	10,873	3,118	2,534	3,154	1,184
XIV. Wood and wicker, etc. ..	42,987	18,453	12,516	5,444	10,670
XV. Earthenware, etc. ..	9,428	11,523	7,837	9,269	3,806
XVI. Paper and stationery ..	128,388	40,937	19,889	9,411	12,316
XVII. Jewellery, etc. ..	74,188	38,268	6,898	5,531	5,004
XVIII. Optical, surgical, and scientific instruments ..	234,004	93,545	34,896	25,687	19,826
XIX. Drugs, chemicals, etc. ..	48,518	46,921	57,645	68,862	57,280
XX. Miscellaneous (a) ..	164,647	92,212	213,688	424,976	262,755
XXI. Gold and silver; and bronze specie ..	3,011,845	255,072	1,503	6,400	..
Total (b) ..	5,020,551	2,126,095	2,707,249	4,159,805	3,666,381

(a) Includes Arms, Ammunition and Explosives. (b) Estimated British currency value—1938-39, £ Stg. 4,013,205; 1941-42, £ Stg. 1,697,887; 1942-43, £ Stg. 2,161,476; 1943-44, £ Stg. 3,321,202; 1944-45, £ Stg. 2,927,250.

C. TOTAL EXPORTS: AUSTRALIAN PRODUCE AND RE-EXPORTS.

	£ A.	£ A.	£ A.	£ A.	£ A.
I. Animal foodstuffs, etc. ..	27,251,449	27,980,804	23,445,379	24,845,872	28,116,074
II. Vegetable foodstuffs; non-alcoholic beverages, etc. ..	25,599,856	19,833,310	16,343,822	26,617,344	28,850,758
III. Alcoholic liquors, etc. ..	1,201,244	2,646,009	1,320,689	1,354,382	1,834,884
IV. Tobacco, etc. ..	350,945	841,248	676,606	862,921	819,662
V. Live animals ..	216,768	114,172	56,757	48,895	50,740
VI. Animal substances, etc. ..	47,328,798	64,523,111	48,168,960	52,625,706	56,207,188
VII. Vegetable substances, etc. ..	306,956	511,484	542,766	950,976	987,796
VIII. Apparel, textiles, etc. ..	668,851	8,303,709	2,599,421	2,928,250	2,320,555
IX. Oils, fats and waxes ..	713,344	1,667,304	2,183,283	4,441,792	3,398,616
X. Paints and varnishes ..	178,252	209,137	184,390	109,373	104,069
XI. Stones and minerals, etc. ..	2,669,520	1,740,276	1,941,593	2,471,956	2,546,432
XII. Metals, metal manufactures, and machinery ..	10,058,351	17,331,064	7,274,009	7,305,825	11,398,723
XIII. Rubber and leather, etc. ..	756,063	1,644,745	1,000,325	938,008	1,007,368
XIV. Wood and wicker, etc. ..	1,109,275	919,921	479,790	352,848	4,86,266
XV. Earthenware, etc. ..	219,065	352,465	163,976	192,504	324,675
XVI. Paper and stationery ..	493,316	444,700	476,574	375,213	473,498
XVII. Jewellery, etc. ..	179,991	145,651	39,458	113,770	89,720
XVIII. Optical, surgical, and scientific instruments ..	384,713	306,791	382,451	184,670	274,341
XIX. Drugs, chemicals, etc. ..	766,185	1,514,666	1,106,004	1,202,603	1,578,819
XX. Miscellaneous (a) ..	1,080,358	8,297,931	14,666,182	8,748,976	12,391,594
XXI. Gold and silver; and bronze specie ..	18,963,012	9,648,786	4,803	9,766	9,611
Unrecorded Exports (Estimated) ..	..	..	2,500,000	10,000,000	2,000,000
Total (b) ..	140,496,312	168,977,284	125,557,238	146,681,650	155,271,489

(a) Includes Arms, Ammunition and Explosives. (b) Estimated British currency value—1938-39, £ Stg. 112,201,372; 1941-42, £ Stg. 134,926,676; 1942-43, £ Stg. 100,245,299; 1943-44, £ Stg. 117,111,097; 1944-45, £ Stg. 123,969,252.

3. Imports of Principal Articles.—The next table shows the quantity, where available, and the value of the principal articles imported into Australia during the years 1941-42 to 1944-45 compared with the year 1938-39. The articles are shown in the order in which they appear in the detailed classification.

PRINCIPAL COMMODITIES IMPORTED : AUSTRALIA.

British Currency Values.

Article.		1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
Fish, preserved in tins	lb.	28,902,983	4,558,049	10,801,275	13,024,425	12,439,213
		946,276	225,514	523,803	480,102	643,689
Tea	lb.	49,530,941	44,681,479	48,407,727	42,958,891	44,238,428
		2,482,883	3,919,448	3,971,206	3,287,509	3,691,706
Whisky	gal.	523,346	205,126	67,904	65,459	219,190
		553,537	299,780	107,527	101,328	339,301
Tobacco and preparations thereof	£	1,863,887	827,658	1,567,335	4,263,600	3,097,437
		484,181	624,282	328,532	431,347	313,293
Copra	cwt.	175,076	225,563	318,308	417,396	270,583
Fibres	£	897,755	2,360,409	1,784,392	1,620,058	2,448,665
Hides and skins	£	695,673	324,318	493,820	369,994	399,761
Pulp for paper-making	ton	37,704	41,422	32,469	32,951	37,944
		321,547	852,276	588,451	653,025	785,057
Seeds	£	515,679	818,189	1,132,608	1,232,142	1,571,647
Socks and stockings	£	43,508	43,001	3,156	8,953	1,515
Gloves	£	368,464	475,404	38,127	147	20,069
Hats and caps	£	179,422	114,205	4,333	12,009	178,004
Trimmings and ornaments	£	385,995	299,288	350,013	326,985	283,976
Other apparel and attire	£	887,459	1,020,148	379,781	825,608	1,164,473
Carpets and carpeting	£	1,099,728	1,138,911	98,838	1,929	46,664
Floorcloths and linoleums	£	562,394	662,389	45,972	7,044	395
Piece Goods—						
Canvas and duck	£	560,588	901,112	1,417,828	2,991,791	1,264,009
Cotton and linen	£	4,826,030	7,923,903	8,052,350	11,990,293	16,948,893
Silk and artificial silk	£	2,624,118	4,111,091	4,150,336	4,839,661	6,505,335
Woolen or containing wool	£	282,262	786,244	162,193	308,132	376,824
All other piece goods	£	1,578,337	2,890,844	2,469,170	3,894,834	2,909,892
Sewing silks, cottons, etc.	£	502,789	693,176	672,404	719,101	771,370
Bags and sacks	£	1,509,618	3,458,512	3,022,088	3,040,705	5,331,044
Yarns—						
Artificial silk	£	534,328	1,351,188	1,045,015	1,176,271	1,269,571
Cotton	£	394,328	714,825	1,085,182	945,063	1,607,775
Woolen	£	48,414	51,090	8,193	5,703	23,944
Other	£	62,760	57,242	39,087	59,877	84,344
Oils, in bulk—						
Kerosene	gal.	54,714,472	62,854,142	58,279,376	63,998,268	90,976,098
		660,898	956,332	889,749	1,067,177	1,479,110
Lubricating (mineral)	gal.	15,519,442	24,380,072	27,478,909	49,061,640	20,359,430
		780,861	1,717,118	2,274,088	4,265,995	1,974,421
Petroleum, including crude	gal.	399,517,906	314,768,980	347,250,441	372,284,781	287,284,365
		5,658,530	7,974,908	8,489,235	9,940,118	7,432,633
Residual and solar	gal.	130,288,368	242,164,327	287,042,166	373,814,644	416,031,131
		930,675	2,784,176	3,134,324	4,777,502	6,372,152
Electrical machinery and appliances	£	3,678,755	2,622,279	3,064,195	3,835,952	5,784,029
Electrical cable and wire, covered	cwt.	258,064	200,045	144,197	115,944	99,342
		1,234,413	1,029,463	964,403	1,014,763	662,235
Agricultural machinery	£	207,479	33,425	100,905	157,339	179,082
Metal-working machinery	£	1,322,911	3,739,367	6,682,539	4,404,597	1,043,182
Motive-power machinery	£	2,495,285	4,255,282	8,472,184	8,229,462	10,140,171
Iron and steel—						
Pipes and tubes	£	451,144	108,872	196,646	193,068	118,218
Plate and sheet	£	2,614,283	5,869,203	3,666,063	4,230,012	4,473,805
Cutlery and platedware	£	524,487	633,958	426,350	491,920	483,187
Tools of trade	£	852,395	927,715	1,165,353	1,346,838	1,444,402
Motor cars, chassis, bodies, and parts	£	7,523,854	5,936,625	9,131,649	12,174,181	8,929,084
Rubber and rubber manufactures	£	1,545,366	2,641,164	1,920,797	2,611,994	1,555,030
Timber, undressed, including logs (a)	sup. ft.	348,098,462	60,699,972	33,074,097	44,738,329	85,989,258
		1,480,987	479,671	329,517	470,222	929,064
Crockery	£	559,176	740,709	410,989	356,083	570,137
Glass and glassware	£	800,470	741,461	262,468	222,688	355,585
Paper, printing	£	2,710,334	1,077,006	116,634	887,642	1,916,506
Stationery and paper manufactures	£	1,008,629	1,410,131	1,047,573	1,632,242	1,958,217
Cinematograph films	lin. ft.	73,859,662	85,205,968	42,830,634	48,613,360	65,724,616
		565,455	532,653	369,342	292,192	475,775
Drugs, chemicals, and fertilizers	£	5,598,553	6,101,337	5,272,355	5,855,242	5,709,390
Arms and explosives	£	1,080,108	5,623,128	47,607,497	18,104,334	20,518,281
Musical instruments, pianos, etc.	£	175,761	54,436	10,152	5,329	9,677
All other articles	£	31,883,688	57,476,753	724,219,656	84,072,375	51,932,879
Total Imports	£	102,156,352	152,004,900	214,442,239	214,224,533	188,483,095

(a) Excludes undressed timber not measured in super. ft.

4. Exports of Principal Articles of Australian Produce.—(i) *Quantities.* The following table shows the quantities of the principal articles of Australian produce exported during the years 1941-42 to 1944-45 compared with the year 1938-39. The articles are shown in the order in which they appear in the detailed classification.

PRINCIPAL COMMODITIES EXPORTED : QUANTITIES, AUSTRALIA.

Article.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
Butter	centl. 2,295,428	1,303,472	1,243,207	1,042,265	937,391
Cheese .. .. .	.. 359,236	314,573	259,643	329,748	335,138
Eggs in shell	doz. 10,144,344	6,306,532	394,600	361,885	520,910
Beef	centl. 2,719,638	1,172,565	226,289	474,470	612,007
Lamb .. .. .	.. 1,583,327	1,643,010	1,842,404	1,415,593	1,087,725
Mutton .. .. .	.. 281,558	106,389	194,411	300,105	379,176
Pork .. .. .	.. 307,164	342,404	19,970	160,172	398,818
Milk and cream .. .. .	.. 191,039	756,411	591,359	392,487	468,711
Fruits, dried .. .. .	.. 1,681,270	1,474,391	1,322,707	1,717,046	1,752,577
" fresh .. .. .	.. 2,752,381	225,453	133,284	135,081	179,297
Barley .. .. .	.. 1,309,084	517,194	255,691	498,976	99,736
Wheat .. .. .	.. 37,877,414	13,387,573	13,526,462	20,195,075	19,434,870
Flour .. .. .	.. 14,501,304	8,273,681	6,834,379	11,810,882	11,104,989
Sugar (cane)	cwt. 8,860,280	3,975,760	1,326,640	1,916,520	2,280,220
Wine	gal. 3,719,401	1,393,539	817,015	1,245,299	1,550,948
Tobacco, manufactured	centl. 9,665	11,234	10,853	15,905	13,485
Wool (in terms of greasy wool) .. .. .	.. 9,160,604	9,373,758	6,300,774	6,074,213	6,736,588
Pearl-shell	cwt. 52,532	36,846	645	51	401
Sandalwood .. .. .	.. 32,962	15,195	40	..	..
Tallow (unrefined) .. .. .	.. 562,500	669,032	99,148	590,681	421,584
Coal	ton 382,085	241,004	254,043	157,741	189,198
Concentrates	cwt. 5,916,685	3,385,529	4,779,504	5,881,512	4,982,482
Copper .. .. .	.. 21,555	2,763	1,423	3,158	3,597
Lead .. .. .	.. 4,099,919	5,287,642	2,986,858	2,531,491	4,811,224
Zinc—bar, block, dust .. .. .	.. 892,630	464,251	483,259	1,044,731	1,203,580
Tin—ingots .. .. .	.. 29,431	3,487	3,029	6,038	9,680
Timber, undressed, including logs (a)	sup. ft. 77,833,352	50,390,704	20,785,684	12,149,083	14,471,849
Soap	centl. 49,871	78,998	58,557	107,762	99,779

(a) Excludes undressed timber not measured in super. ft.

(ii) *Values.* The values of the principal articles of Australian produce exported during the years 1941-42 to 1944-45 compared with the year 1938-39 are given in the following table :—

PRINCIPAL COMMODITIES EXPORTED : VALUES, AUSTRALIA.

Australian Currency Values.

Article.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£ A.	£ A.	£ A.	£ A.	£ A.
Butter	12,891,837	8,124,975	8,085,660	6,870,852	8,249,506
Cheese	1,073,931	1,428,111	1,225,184	1,953,958	1,975,113
Eggs in shell	638,159	402,795	33,385	32,552	51,551
Meats	11,776,637	14,094,013	10,895,860	13,063,349	14,094,530
Milk and cream	791,011	2,059,355	1,858,137	1,447,698	1,780,297
Fruits, dried	2,864,676	2,567,621	2,276,642	3,294,493	3,571,171
" fresh	2,022,874	238,048	191,129	315,329	318,351
" preserved in liquid	1,267,070	908,250	280,625	530,214	508,108
Barley	341,935	171,690	93,846	205,790	57,277
Wheat	8,734,974	4,644,793	4,884,310	8,264,235	9,752,156
Flour	4,540,210	4,191,382	3,494,440	6,699,299	6,731,717
Sugar (cane)	4,177,584	2,636,403	1,001,331	1,523,786	1,853,628
Wine	981,143	497,586	292,043	422,842	595,278
Tobacco, manufactured	225,025	382,827	395,073	512,839	474,438
Hides and skins	4,094,754	5,981,589	3,705,014	6,730,053	6,591,200
Wool	42,629,461	58,040,901	44,318,188	45,767,369	49,386,611
Pearl-shell	244,266	252,766	7,525	489	5,198
Sandalwood	42,330	23,272	80	..	..
Tallow (unrefined)	483,034	841,719	186,147	903,978	669,490
Coal	347,054	259,093	206,533	182,354	223,677
Concentrates	1,846,931	1,026,769	1,282,262	1,701,648	1,753,509
Copper	15,566	17,859	9,107	24,259	26,312
Lead	4,266,566	6,311,293	3,446,057	3,158,313	5,556,418
Zinc—bar, block, slabs, ingots	887,421	522,091	551,333	1,203,490	1,879,193
Tin Ingots	370,137	56,713	56,467	113,796	181,430
Leather	626,198	766,861	570,477	499,715	559,970
Timber, undressed, including logs (a)	926,501	700,014	479,110	269,661	356,512
Soap	74,594	247,364	177,250	341,487	277,649
Gold	14,958,633	8,933,637	..	4	..
Silver	992,486	459,937	3,287	2,322	9,485
All other articles	10,342,670	40,061,462	30,334,457	26,485,668	32,115,333
Unrecorded Exports (Estimated) .. .. .	..	..	2,500,000	10,000,000	2,000,000
Total Exports (Australian Produce) .. .. .	..	..	..	..	..
(b)	135,475,761	166,851,189	122,849,989	142,521,845	151,605,108

(a) Excludes undressed timber not measured in super. ft.
see page 358.

(b) Estimated British currency values—

5. Imports of Merchandise, Specie and Bullion.—The table hereunder gives the value in British currency of imports into Australia during each of the last seven years grouped under the headings—Merchandise, and Specie and Bullion. The imports of merchandise are shown under the sub-headings of “free” and “dutiable” goods :—

IMPORTS OF MERCHANDISE, SPECIE AND BULLION : AUSTRALIA.

British Currency Values.

Year.	Merchandise.			Specie and Bullion.	Total Imports (a)
	Free Goods.	Dutiable Goods.	Total Merchandise.		
	£ Stg.	£ Stg.	£ Stg.	£ Stg.	£ Stg.
1938-39 ..	40,665,193	58,647,957	99,313,150	2,843,202	102,156,352
1939-40 ..	50,294,728	65,380,777	115,675,505	4,120,670	119,796,175
1940-41 ..	62,600,283	46,049,773	108,650,056	3,267,458	111,917,514
1941-42 ..	99,180,381	50,175,416	149,355,797	2,649,103	152,004,900
1942-43 ..	174,842,130	37,264,571	212,106,701	2,335,538	214,442,239
1943-44 ..	172,891,762	37,137,159	210,028,921	4,195,612	214,224,533
1944-45 ..	149,807,414	36,237,094	186,044,508	2,438,587	188,483,095

(a) Estimated Australian currency value—1938-39, £A.127,950,831; 1939-40, £A.150,044,709; 1940-41, £A.140,176,686; 1941-42, £A.190,386,137; 1942-43, £A.268,588,904; 1943-44, £A.266,316,228; 1944-45, £A.236,075,076.

6. Exports of Merchandise, Specie and Bullion.—The next table shows the recorded value of exports from Australia during each of the last seven years, grouped under the headings—Merchandise, and Specie and Bullion, giving the exports of Australian Produce and Other Produce separately :—

EXPORTS OF MERCHANDISE, SPECIE AND BULLION : AUSTRALIA.

Year.	Merchandise.			Specie and Bullion.			Total.
	Australian Produce.	Other Produce.	Total.	Australian Produce.	Other Produce.	Total.	
	£	£	£	£	£	£	£
1938-39 (a)	119,524,594	2,008,706	121,533,300	15,951,167	3,011,845	18,963,012	140,496,312
(b)	95,428,818	1,603,757	97,032,575	12,759,349	2,409,448	15,168,797	112,201,372
1939-40 (a)	146,894,316	1,855,242	148,749,558	19,997,664	1,685,836	21,683,500	170,433,058
(b)	117,280,891	1,481,231	118,762,122	15,996,663	1,348,660	17,345,323	136,107,445
1940-41 (a)	132,783,856	1,953,721	134,737,577	21,927,326	498,964	22,426,290	157,163,867
(b)	106,015,055	1,559,857	107,574,912	17,541,376	399,167	17,940,543	125,515,455
1941-42 (a)	157,457,475	1,871,023	159,328,498	9,393,714	255,072	9,648,786	168,977,284
(b)	125,714,550	1,493,831	127,208,381	7,514,239	204,056	7,718,295	134,926,676
1942-43 (a)	122,846,689	2,705,746	125,552,435	3,300	1,503	4,803	125,557,238
(b)	98,081,188	2,160,276	100,241,464	2,635	1,200	3,835	100,245,299
1943-44 (a)	142,518,479	4,153,405	146,671,884	3,366	6,400	9,766	146,681,650
(b)	113,787,208	3,316,092	117,103,300	2,687	5,110	7,797	117,111,097
1944-45 (a)	151,595,497	3,666,381	155,261,878	9,611	..	9,611	155,271,489
(b)	121,034,329	2,927,250	123,961,579	7,673	..	7,673	123,969,252

(a) Australian currency values.

(b) British currency values.

7. Imports in Tariff Divisions.—In the following table the imports into Australia during the years 1941-42 to 1944-45 compared with the year 1938-39 have been classified in accordance with the sixteen divisions of the Customs Tariff.

IMPORTS IN TARIFF DIVISIONS : AUSTRALIA.

British Currency Values.

Tariff Division.	Imports.				
	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£ Stg.	£ Stg.	£ Stg.	£ Stg.	£ Stg.
I. Ale, Spirits, and Beverages	914,006	495,378	498,894	594,646	986,636
II. Tobacco and preparations thereof ..	1,863,887	912,784	1,567,335	4,263,600	3,097,437
III. Sugar	40,034	74,792	19,496	20,421	15,205
IV. Agricultural Products and Groceries ..	6,331,568	7,359,973	8,363,958	6,338,304	8,099,147
V. Textiles, Felts and Furs, and Manufactures thereof, and Attire	15,921,221	25,353,237	22,654,712	30,246,107	35,977,525
VI. Metals and Machinery	22,168,275	29,022,093	55,457,451	44,854,948	44,111,515
VII. Oils, Paints, and Varnishes	9,559,838	13,779,610	15,647,293	21,840,964	18,869,153
VIII. Earthenware, Cement, China, Glass, and Stone	2,308,556	2,429,076	1,449,961	1,296,533	1,524,130
IX. Drugs and Chemicals	4,035,376	4,570,606	4,552,383	4,179,488	4,079,530
X. Wood, Wicker, and Cane	2,114,721	753,210	497,597	612,486	1,218,434
XI. Jewellery and Fancy Goods	2,045,947	1,546,211	1,135,112	1,183,156	1,287,472
XII. Hides, Leather, and Rubber	1,875,175	2,944,848	2,172,509	2,860,141	1,833,989
XIII. Paper and Stationery	6,473,254	4,781,139	2,732,963	5,301,682	6,632,124
XIV. Vehicles	9,263,302	22,800,931	51,757,340	60,461,054	36,205,220
XV. Musical Instruments	285,638	54,436	10,152	5,329	9,677
XVI. Miscellaneous	10,400,018	29,565,187	39,688,769	22,780,692	18,943,379
— Free Goods not specially mentioned in Tariff	3,712,334	2,912,286	4,500,776	3,189,370	3,153,935
Total Merchandise ..	99,313,150	149,355,797	212,106,701	210,028,921	186,044,508
Specie and Bullion ..	2,843,202	2,649,103	2,335,538	4,195,612	2,438,587
Grand Total ..	102,156,352	152,004,900	214,442,239	214,224,533	188,483,095

8. Imports and Net Customs Revenue.—The percentage of net Customs revenue collected on the total value of all merchandise imported in each year was as follows:—1938-39, 21.9 per cent.; 1941-42, 11.1 per cent.; 1942-43, 6.7 per cent.; 1943-44, 6.6 per cent.; and 1944-45, 7.9 per cent. Primage duty was in force during these years and adding this to net Customs revenue, the percentages were as follows:—1938-39, 25.0 per cent.; 1941-42, 12.7 per cent.; 1942-43, 7.5 per cent.; 1943-44, 7.5 per cent.; and 1944-45, 8.9 per cent. The percentages of net Customs revenue, omitting primage on the total value of dutiable goods only were—1938-39, 36.9 per cent.; 1941-42, 32.9 per cent.; 1942-43, 37.6 per cent.; 1943-44, 37.3 per cent.; and 1944-45, 40.8 per cent. The calculations are based on uniform currency values and on the assumption that the value of clearances approximated to the value of imports during the same period.

9. **Protective and Revenue Customs Duties.**—In the following table the value of goods cleared for home consumption classified under protective and revenue duties and the gross duty collected are shown for the United Kingdom and other countries :—

IMPORTS (CLEARANCES) CLASSIFIED UNDER PROTECTIVE AND REVENUE DUTIES : AUSTRALIA.

Australian Currency Values.

Item.	1937-38.			1938-39.			1939-40.		
	United Kingdom.	Other Countries.	Total.	United Kingdom.	Other Countries.	Total.	United Kingdom.	Other Countries.	Total.
	£A. '000.	£A. '000.	£A. '000.	£A. '000.	£A. '000.	£A. '000.	£A. '000.	£A. '000.	£A. '000.
Dutiable Goods :—									
Protective.. ..	11,940	9,758	21,698	10,981	9,479	20,460	10,866	8,929	19,795
Revenue	16,141	43,917	60,058	13,623	38,036	51,659	16,674	43,146	59,820
Total Dutiable Goods ..	28,081	53,675	81,756	24,604	47,515	72,119	27,540	52,075	79,615
Free Goods	28,151 (a)	26,842 (a)	58,183	22,607 (a)	26,119 (a)	54,536	24,355 (a)	33,447 (a)	68,155
Total All Goods	56,232 (a)	80,517 (a)	139,939	47,211 (a)	73,634 (a)	126,655	51,895 (a)	85,522 (a)	147,770

PERCENTAGE OF TOTAL GOODS CLEARED FOR HOME CONSUMPTION.

	%	%	%	%	%	%	%	%	%
Dutiable Goods :—									
Protective.. ..	8.6	6.9	15.5	8.6	7.5	16.1	7.4	6.0	13.4
Revenue	11.5	31.4	42.9	10.3	30.0	40.8	11.3	29.2	40.5
Total Dutiable Goods ..	20.1	38.3	58.4	19.4	37.5	56.9	18.7	35.2	53.9
Free Goods	20.1	19.2	41.6	17.9	20.6	43.1	16.5	22.6	46.1
Total All Goods	40.2	57.5	100.0	37.3	58.1	100.0	35.2	57.8	100.0

GROSS CUSTOMS DUTY COLLECTED.(b)

	£A. '000.	£A. '000.	£A. '000.	£A. '000.	£A. '000.	£A. '000.	£A. '000.	£A. '000.	£A. '000.
Dutiable Goods :—									
Protective.. ..	2,335	4,040	6,375	2,139	3,991	6,130	1,999	3,585	5,584
Revenue	1,984	21,199	23,183	1,783	20,449	22,232	2,228	23,238	25,466
Total Dutiable Goods ..	4,319	25,239	29,558	3,922	24,440	28,362	4,227	26,823	31,050

AVERAGE AD VALOREM RATE OF DUTY ON GOODS CLEARED FOR HOME CONSUMPTION.

	%	%	%	%	%	%	%	%	%
Dutiable Goods :—									
Protective.. ..	19.6	41.4	29.4	19.5	42.1	30.0	18.4	40.2	28.2
Revenue	12.3	48.3	38.6	13.1	53.8	43.0	13.4	53.9	42.6
Total Dutiable Goods ..	15.4	47.0	36.2	15.9	51.4	39.3	15.3	51.5	39.0

(a) Excludes goods admitted free for Commonwealth, Consuls, etc., and free reimported not distributed according to United Kingdom and other origin.

(b) Excludes primage duty.

§ 11. Ships' Stores.

Prior to 1906 goods shipped in Australian ports on board oversea vessels as ships' stores were included in the general exports. From 1906, ships' stores have been specially recorded as such, and have been omitted from the export figures. The value of these stores shipped each year during the period 1935-36 to 1944-45, showing fuel oils separately, is given in the following table :—

VALUE OF STORES SHIPPED ON OVERSEA VESSELS: AUSTRALIA.

Period.	Fuel Oils.	All Stores (including Fuel Oils). (a)	Period.	Fuel Oils.	All Stores (including Fuel Oils). (a)
	£ A.	£ A.		£ A.	£ A.
1935-36 ..	562,927	1,808,291	1940-41 ..	1,674,133	3,528,555
1936-37 ..	493,327	1,740,437	1941-42 ..	3,395,337	5,791,983
1937-38 ..	610,080	2,091,249	1942-43 ..	3,833,414	6,016,334
1938-39 ..	606,515	2,105,619	1943-44 ..	6,078,800	8,478,714
1939-40 ..	921,144	2,539,848	1944-45 ..	8,229,307	11,373,252

(a) Estimated British currency value—1935-36, £ Stg. 1,443,745; 1936-37, £ Stg. 1,389,570; 1937-38, £ Stg. 1,669,660; 1938-39, £ Stg. 1,681,133; 1939-40, £ Stg. 2,027,823; 1940-41, £ Stg. 2,817,210; 1941-42, £ Stg. 4,624,338; 1942-43, £ Stg. 4,803,460; 1943-44, £ Stg. 6,769,432; 1944-45, £ Stg. 9,080,441.

In addition to fuel oils, the principal items of ships' stores supplied to oversea vessels in 1944-45 were—Bunker coal, £A.382,505; meats, £A.549,164; tobacco and cigarettes, £A.111,334; vegetables, £A.139,578; ale, beer and porter, £A.213,661; butter, £A.64,151; and fish, £A.59,137.

The net Customs duty collected on ships' stores carried to Australia on oversea vessels and consumed in Australian waters amounted in 1944-45 to £A.15,963.

§ 12. Movement of Specie and Bullion.

1. Imports and Exports.—The following tables show the values of gold and silver specie and bullion, and of bronze specie imported into and exported from Australia during the years 1939-40 to 1944-45.

IMPORTS AND EXPORTS, SPECIE AND BULLION: AUSTRALIA.

Items.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.	1944-45.
IMPORTS.						
	£ Stg.	£ Stg.	£ Stg.	£ Stg.	£ Stg.	£ Stg.
Gold—Specie ..	4,106	..	21	..	..	..
Bullion ..	4,076,281	3,208,211	2,615,086	1,287,324	1,284,318	1,131,931
Total ..	4,080,387	3,208,211	2,615,107	1,287,324	1,284,318	1,131,931
Silver—Specie ..	13,366	29,920	18,705	991,540	2,752,046	1,306,278
Bullion ..	26,877	29,220	15,213	2,299	843	378
Total ..	40,243	59,140	33,918	993,839	2,752,889	1,306,656
Bronze—Specie ..	40	107	78	54,375	158,405	..
Grand Total(a)	4,120,670	3,267,458	2,649,103	2,335,538	4,195,612	2,438,587

(a) Estimated Australian currency value—1939-40, £A.5,161,139; 1940-41, £A.4,092,489; 1941-42, £A.3,318,001; 1942-43, £A.2,925,261; 1943-44, £A.5,255,004; 1944-45, £A.3,054,330.

IMPORTS AND EXPORTS, SPECIE AND BULLION: AUSTRALIA—*continued.*

Items.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.	1944-45.
EXPORTS.						
Gold—Specie ..	£A. 172,933	£A. 105,688	£A. 10	£A. ..	£A. 4	£A. ..
Bullion ..	20,585,796	22,014,825	9,188,233	..	..	..
Total ..	20,758,729	22,120,513	9,188,243	..	4	..
Silver—Specie ..	7,454	4,485	17,979	3,513	8,722	9,485
Bullion ..	916,819	301,248	442,424	1,277	..	..
Total ..	924,273	305,733	460,403	4,790	8,722	9,485
Bronze—Specie ..	498	44	140	13	1,040	126
Total—						
Australian Produce ..	19,997,664	21,927,326	9,393,714	3,300	3,366	9,611
Other Produce ..	1,685,836	498,964	255,072	1,503	6,400	..
Grand Total(a)	21,683,500	22,426,290	9,648,786	4,803	9,766	9,611

(a) Estimated British currency value—1939-40, £ Stg. 17,345,323; 1940-41, £ Stg. 17,940,543; 1941-42, £ Stg. 7,718,295; 1942-43, £ Stg. 3,835; 1943-44, £ Stg. 7,797; 1944-45, £ Stg. 7,673.

2. Imports and Exports by Countries.—The next table shows the imports and exports of specie and bullion from and to various countries during the year 1944-45:—

IMPORTS AND EXPORTS OF SPECIE AND BULLION BY COUNTRIES: AUSTRALIA, 1944-45.

Country.	Imports.			Exports.		
	Specie.	Bullion.	Total.	Specie.	Bullion.	Total.
	£ Stg.	£ Stg.	£ Stg.	£A.	£A.	£A.
Australia (a) ..	2,978	..	2,978	..	..	..
Ceylon .. ..	..	..	..	40	..	40
New Zealand ..	3,300	1,132,175	1,135,475	..	..	..
Pacific Islands—						
Fiji .. ..	..	134	134	3,500	..	3,500
Norfolk Island ..	..	..	..	253	..	253
Total, British Countries ..	6,278	1,132,309	1,138,587	3,793	..	3,793
Netherlands East Indies .. ..	..	..	..	125	..	125
Pacific Islands—						
New Hebrides ..	..	..	..	5,693	..	5,693
United States of America ..	1,300,000	..	1,300,000	..	..	..
Total, Foreign Countries ..	1,300,000	..	1,300,000	5,818	..	5,818
Grand Total ..	1,306,278	1,132,309	2,438,587 (b)	9,611	..	9,611 (c)

(a) Australian produce reimported. (b) Estimated Australian currency value—£A. 3,054,330.
(c) Estimated British currency value—£ Stg. 7,673.

§ 13. Exports according to Industries.

1. **Classification.**—The following table gives an analysis of the exports of Australian produce according to the main classes of industry in which the goods were produced for the years 1942-43, 1943-44 and 1944-45 in comparison with those for the year 1913. The index-number based on the year 1913 shows the variations in the total recorded value only of exports in each industrial group, and has not been adjusted either for price-changes or in accordance with the variation of the Australian £ in relation to sterling.

A graph is published on page 342 of this chapter which shows the value of exports of Australian produce according to industrial groups from 1920-21 onward.

EXPORTS OF AUSTRALIAN PRODUCE ACCORDING TO INDUSTRIAL ORIGIN. VALUE OF EXPORTS.

Industrial Group.	1913.(a)		1942-43.		1943-44.		1944-45.	
	£A.'000.	Index No.	£A.'000.	Index No.	£A.'000.	Index No.	£A.'000.	Index No.
Agriculture ..	10,678	100	14,846	139	25,476	239	27,982	262
Pastoral ..	42,057	100	59,234	141	66,649	158	71,229	169
Dairy and Farm- yard ..	3,855	100	12,406	322	11,456	297	13,587	352
Mines and Quarries ^b	21,926	100	13,923	63	13,904	63	17,067	78
Fisheries ..	425	100	97	23	125	29	56	13
Forestry ..	1,106	100	454	41	294	27	389	35
Total, Primary Produce ..	80,047	100	100,960	126	117,904	147	130,310	163
Manufacturing ..	2,305	100	32,376	1405	31,732	1377	28,201	1223
Total ..	82,352	100	133,336 (c)	162	149,636 (c)	182	158,511 (c)	192

(a) Base year. (b) Australian production of gold substituted for exports of gold each year.
(c) Estimated British currency value in £ Stg. '000—1942-43, £ Stg. 106,456, index-number, 129; 1943-44, £ Stg. 119,470, index-number, 145; 1944-45, £ Stg. 126,556, index-number, 154.

2. **Relative Importance of Industrial Groups.**—In the previous table the value of commodities in each industrial group of exports of Australian produce is that recorded at date of shipment from Australia, with the exception that the value of the production of gold in Australia in each year has been substituted in the Mines and Quarries group for actual shipments of gold in each year. This has been done to eliminate the exports of gold for monetary purposes. In order of importance the pastoral group occupied the highest place representing in 1913 51.1 per cent. of the total exports, as compared with 44.4 per cent. in 1942-43; 44.5 per cent. in 1943-44; and 44.9 per cent. in 1944-45.

Exports of agricultural produce rank next in importance. From 13.0 per cent. of the total exports in 1913, agricultural produce decreased to 11.1 per cent. in 1942-43 but increased to 17.0 per cent. in 1943-44 and again to 17.7 per cent. in 1944-45.

According to value, exports of dairy and farmyard produce increased from 4.7 per cent. in 1913 to 9.3 per cent. in 1942-43, declined in 1943-44 to 7.6 per cent., but increased again to 8.6 per cent. in 1944-45. Though the products of mines and quarries declined seriously subsequently to the year 1913, a recovery has been made in more recent years, the figures for 1944-45 representing 10.8 per cent. of the total exports. The manufacturing groups of exports, which represented 2.8 per cent. in 1913, increased to 17.8 per cent. in 1944-45.

3. **Australian Production and Exports according to Industry.**—The following table shows the total values of Australian production and Australian exports during the period of ten years, 1933-34 to 1942-43, classified according to industries; the proportion of each industrial group to total production and to total exports; and in the last column the percentage exported of the production of each industrial group :—

**VALUE OF AUSTRALIAN PRODUCTION AND EXPORTS, ACCORDING TO
INDUSTRY : 1933-34 TO 1942-43.**

Australian Currency Values.

Industrial Group.	Value of Production during Ten Years.	Percentage on Total Production.	Value of Exports during Ten Years.	Percentage on Total Exports.	Percentage Exported of the Production in each Industrial Group.
	£A.'000.	%	£A.'000.	%	%
Agriculture	848,060	17.08	265,134	18.59	31.26
Pastoral	1,021,820	20.58	670,735	47.04	65.64
Dairy and Farmyard	561,769	11.31	136,157	9.55	24.24
Mining	309,644	6.24	198,739	13.94	64.18
Forestry and Fisheries	143,628	2.89	12,179	0.85	8.48
Total, Primary Produce..	2,884,921	58.10	1,282,944	89.97	44.47
Manufacturing	2,080,273	41.90	143,085	10.03	(a) 6.88
Total	4,965,194	100.00	1,426,029	100.00	28.72

(a) See letterpress in the concluding paragraph of this section.

The figures relating to value of production and value of exports are subject to the qualifications mentioned previously. A period of ten years is embraced, and the values of production and of exports therein give a very fair index of the relative importance of the several industrial groups.

The total exports of gold bullion and specie are not included in the value of exports of the mining industry, the actual production of gold during the period being taken.

On account of the inherent difficulties of classifying production and exports by industries, the figures given for the manufacturing industry should not be interpreted too literally. In the first place, the value of manufacturing "production" stated is not the total value of output, but only the "value added" by manufacturing processes, while the value of manufactured exports represents the total value of the goods, including raw materials, etc. Secondly, some of the exported goods classified as primary produce have been increased in value by manufacturing processes, but have not been changed in form sufficiently to warrant their inclusion as manufactured products, e.g., flour, butter and sugar.

§ 14. Australian Index of Export Prices.

1. **The Old Annual Series.**—With the exception of a few years after 1929-30 an annual index of export prices has been published by this Bureau since its inception. An index was at first obtained by valuing the exports (other than gold) of each successive year at the prices of 1901, and dividing the values so obtained into the export values actually recorded. These computations were carried back to 1901. In 1918 the procedure was

changed and brought into harmony with the methods adopted by the Bureau for constructing other price indexes. The average quantities of the principal exports (other than gold) for the nineteen and a half years from 1st January, 1897 to 30th June, 1916 were taken, and valued at the prices of each successive year. Comparisons of the resulting totals for different years were assumed to give the required comparisons of export price-levels for those years. The two methods would, however, give the same results only if the proportion of different exports for each year in question was the same as the average for the nineteen and a half years. The proportion was, in fact, varying appreciably from year to year with the seasons. The old index was, therefore, based on a different system of weighting in each year, so that the results were not comparable for different years. The new method gave comparable and satisfactory results so long as the proportion of different exports was not widely different from the average of 1897 to 1916. After the 1914-19 War however, the relative importance of different exports changed considerably. By about 1930 it began to appear that the change was great enough to throw some doubt on the accuracy of the index. It was published with increasing reluctance until 1929-30, after which it was withdrawn from publication.

Following that year endeavours were made to design and compile new series of index-numbers which would reflect more accurately the short- and intermediate-period fluctuations in export prices.

2. **The New Monthly Series.**—An attempt was made to overcome some of the difficulties occasioned by variations in the proportions of the different exports by compiling two separate series of monthly index-numbers. The first series was compiled in very much the same way as the old annual index-numbers, although certain important changes have been made in the data utilized. These are described below. For the present it may be noted that the purpose of this index is to provide comparisons, over a limited number of years, of the level of prices of those commodities normally exported from Australia, making no allowance for any benefit or disadvantage accruing from variations during the period in the relative proportions of the different kinds of exports. It is thus an index purely of price changes. The second series was designed for shorter-period comparisons—from one or more months of the current year to the corresponding months of the previous year. The latter is compiled in such a way as to take closer account of the actual quantities of each article exported at current prices; and hence to indicate with rather greater accuracy the extent to which price-movements have affected the actual value of our current exports. It will be clear, therefore, that the two series are designed to measure different things, any differences between the results being explicable on wider grounds than mere differences in formulae.

Reference has already been made to the fact that the data on which the new series are based differ from those utilized in the old series of annual index-numbers. These changes apply to both of the new series.

The most important change was the use of actual (or calculated) export parities, based on actual price quotations, in place of the "unit-values" declared at the Customs. Declared unit values are not satisfactory even in an annual index-number, partly because the returns are not always sufficiently accurate, and partly because there is a constant variation in the proportions of different grades and qualities included in the actual exports of any given period. An obvious example of the latter type of inaccuracy is furnished by the case of wool, the poorer grades of which are shipped during certain months of the off-season. In a monthly series of index-numbers, declared unit-values are even less satisfactory, as the difficulties are greatly magnified over short periods, during which the inaccuracies have little chance of averaging out.

Moreover, the export parities have in all cases been based on prices f.o.b. Australian ports. Where freight and selling charges form an appreciable percentage of the selling price, the use of unadjusted oversea quotations results in some distortion of the amplitude of the percentage fluctuations in prices.

The old index took no account of gold exports. The omission is natural and reasonable for countries which produce little or no gold. For gold-producing countries, although some exports of gold would be irrelevant (e.g., the Australian shipments of gold reserves during the depression), the exports of newly-produced gold should be taken into account. In the new series, therefore, gold is included, but the weight given to it is not the quantity exported but the quantity produced.

Each series of index-numbers takes account of 20 items, which constitute about 85 per cent. of the total value of exports of merchandise and silver, and gold production.

3. **Monthly Index (Fixed Weights).**—The original "multipliers" used for the first series of index-numbers were, in round figures, the average annual exports (or production, in the case of gold) during the five years 1928-29 to 1932-33. This period was chosen some time ago as being fairly representative of the mutual relationship of the different export commodities over the period from 1928 to 1933 and, so far as it was possible to judge at the time, over the ensuing few years. As from July, 1936, the "multipliers", were revised to bring them into accord with observed changes in the composition of Australian exports. They are now based on the average annual exports (production in the case of gold) during the three years 1933-34 to 1935-36. The break of continuity has been bridged by the usual method of splicing.

The twenty items, together with the units of quantity and the "multipliers", are given in the following table. It should be noted that (i) the "multiplier" allotted to wheat has been increased to take into account the "wheat equivalent" of flour exported; (ii) that allotted to greasy wool has been increased to take into account the "greasy equivalent" of scoured wool, tops and wool on skins; and (iii) those allotted to metals have been increased to take into account the metallic contents of ores and concentrates exported. This is the only satisfactory method of dealing with these commodities, for which it is not possible to secure satisfactory export price quotations in their own right.

EXPORT PRICE INDEX : WEIGHTING SYSTEM (FROM 1st JULY, 1936).

Item.	Unit of Quantity.	Quantity "Multipliers" for New Index-numbers.	Percentage Value Weights if applied to 1943-44.
1. Wheat (and wheat equivalent of flour) ..	Bushel	101,000,000	16.83
2. Sultanas	Ton	38,200	1.36
3. Lexias	"	3,000	0.11
4. Currants	"	13,400	0.39
5. Sugar (cane)	"	305,000	3.27
6. Wool (as in the grease)	lb.	975,000,000	45.40
7. Tallow	Cwt.	600,000	0.68
8. Cattle hides	lb.	28,000,000	0.75
9. Calfskins	"	1,800,000	0.10
10. Beef (frozen)	"	182,000,000	2.54
11. Lamb (frozen)	"	138,000,000	2.95
12. Mutton (frozen)	"	44,000,000	0.54
13. Pork (frozen)	"	16,000,000	0.38
14. Butter	Cwt.	2,140,000	11.05
15. Silver	Oz.	7,300,000	0.63
	(standard)		
16. Copper	Ton	3,600	0.16
17. Tin	"	1,300	0.29
18. Zinc	"	99,000	1.74
19. Lead	"	208,500	3.75
20. Gold (production)	Oz. (fine)	937,000	7.08
			100.00

The relative importance of the several items in the whole index is roughly indicated in the last column, which shows in percentage form the "value aggregates" for 1943-44, i.e., the average prices for that year multiplied by the "quantity multipliers."

The monthly index-numbers of export prices for the period January, 1935 to December, 1945 are set out in the following table:—

MONTHLY EXPORT PRICE INDEX : AUSTRALIA.

(Base : Average three years ended June, 1939 = 1,000.)

Month.	1935.	1936.	1937.	1938.	1939.	1940.	1941.	1942.	1943.	1944.	1945.
January ..	737	981	1,216	959	830	1,031	1,036	1,063	1,143	1,176	1,311
February ..	721	990	1,187	935	827	1,031	1,043	1,062	1,141	1,175	1,307
March ..	717	998	1,256	928	807	1,033	1,048	1,062	1,147	1,176	1,314
April ..	769	1,004	1,271	918	801	1,034	1,048	1,063	1,147	1,178	1,326
May ..	818	1,004	1,249	921	801	1,036	1,047	1,064	1,147	1,192	1,319
June ..	829	949	1,202	886	823	1,037	1,048	1,058	1,147	1,196	1,335
July ..	834	977	1,212	902	835	1,034	1,049	1,139	1,148	1,234	1,342
August ..	844	1,022	1,210	872	830	1,031	1,051	1,138	1,157	1,255	1,338
September ..	907	1,004	1,145	840	942	1,033	1,052	1,139	1,152	1,279	1,355
October ..	952	1,042	1,118	849	977	1,034	1,056	1,136	1,159	1,305	1,360
November ..	942	1,135	1,019	834	980	1,036	1,061	1,138	1,172	1,294	1,360
December ..	935	1,169	1,012	822	986	1,034	1,061	1,136	1,175	1,295	1,497
Average	834	1,023	1,173	888	872	1,033	1,050	1,100	1,153	1,229	1,347

4. **Monthly Index (Changing Weights).**—The second series of the new index-numbers is designed merely for comparisons with the corresponding month, or period of months, of the previous year. The same price quotations are used, but the "multipliers" are much more closely in accord with the actual experience of the periods in question.

For any given month, the procedure is to multiply the price of each commodity in that month, and its price in the corresponding month of the previous year, by the quantity exported during the given month. A comparison of the resulting aggregates gives one possible measure of the change in prices over the period; i.e., the change assuming that the proportions of the different kinds of exports whose prices are to be measured were the same as their proportions in the given month. Another possible measure is given by assuming that the proportions of the different kinds of exports in the given month had been the same as their proportions in the corresponding month of the previous year. Accordingly the first step in the procedure is repeated, substituting the quantities exported during the corresponding month of the previous year.

The index-numbers so obtained have been proved over a period of years to lie very close together. As it is convenient for practical reasons to have one single figure rather than two close alternatives the two index-numbers are multiplied together and the square root of the product extracted.* This is taken to be the index-number for the month, the prices of the corresponding month of the previous year being taken as base.

The index-numbers for two or more months of one year, as compared with the corresponding period of the previous year, are computed in very much the same way. The process merely involves the cumulative addition of the aggregates computed for the individual months, and extraction of the index-numbers as explained above.

* Up to 1941-42, Professor Irving Fisher's "Ideal" Formula, No. 353 was used, but from 1942-43 the "Edgeworth-Marshall", No. 2153 was substituted, which on Fisher's own assertion gives practically identical results, and satisfies all the requirements of his "Ideal" Index.

Index numbers computed on this basis are shown in the following table for the years 1943-44 and 1944-45 :—

MONTHLY EXPORT PRICE INDEX (CHANGING WEIGHTS) : AUSTRALIA.

(Base : Weighted Average Price Level in corresponding months of preceding year = 1,000.)

Month.	1943-44.		1944-45.	
	Month stated compared with same month of preceding year.	Period of trade year ending in month stated compared with same period of preceding year.	Month stated compared with same month of preceding year.	Period of trade year ending in month stated compared with same period of preceding year.
July	1,009	1,009	1,040	1,040
August	1,022	1,014	1,076	1,058
September	1,014	1,014	1,103	1,073
October	1,021	1,016	1,152	1,092
November	1,024	1,017	1,118	1,097
December	1,025	1,019	1,111	1,100
January	1,022	1,019	1,105	1,101
February	1,025	1,020	1,091	1,100
March	1,026	1,021	1,112	1,101
April	1,025	1,021	1,109	1,102
May	1,045	1,023	1,078	1,100
June	1,050	1,025	1,078	1,098

Monthly export price index-numbers are issued in regular press notices, and in the *Monthly Review of Business Statistics*.

§ 15. External Trade of Australia and other Countries.

1. **Essentials of Comparisons.**—Direct comparisons of the external trade of any two countries are possible only when the general conditions prevailing therein, and the system of record, are more or less identical. For example, in regard to the mere matter of record, it may be observed that in one country the value of imports may be the value at the port of shipment, while in another the cost of freight, insurance and charges may be added thereto. Again, the values of imports and exports in the one may be declared by merchants, whereas in the other they may be the official prices fixed from time to time by a commission constituted for the purpose. In later years, moreover, a very substantial difference in the value of imports would arise from the different methods of converting the moneys of foreign countries, i.e., from the application of current rates of exchange or of the mint par. Lastly, the figures relating to the external trade of any country are also affected in varying degree by the extent to which they include transit or re-export trade. This class of trade represents a much greater proportion of the trade of Switzerland and Belgium than that of other countries. France and the United Kingdom also re-export largely, whereas in Canada, Australia and New Zealand the same class of trade represents a comparatively small proportion of the total trade.

2. **"Special Trade" of Various Countries.**—Special trade may be defined according to the interpretation of the British Board of Trade, as (a) imports entered for consumption in the country (as distinguished from imports for transshipment or re-export), and (b) exports of domestic products.

In the following table the figures relate as nearly as possible to imports entered for consumption in the various countries specified, and to exports of their domestic products. It is to be noted, however, that these figures do not invariably denote the same thing throughout, since, in the United Kingdom and other manufacturing countries, raw or partly manufactured materials are imported as for home consumption, and, after undergoing some process of manufacture or further modification, are re-exported as domestic production. Nevertheless, a comparison of this character reveals approximately the extent of the external trade which otherwise would not be manifest. The latest figures relating to foreign countries have been extracted from the *Statistical Year Book of the League of Nations*.

IMPORTS FOR HOME CONSUMPTION, AND EXPORTS OF DOMESTIC PRODUCTS
(MERCHANDISE ONLY): VARIOUS COUNTRIES, 1939.

Country.	Trade.			Trade per Inhabitant.		
	Imports.	Exports.	Total.	Imports.	Exports.	Total.
	£'000,000	£'000,000	£'000,000	£ s. d.	£ s. d.	£ s. d.
	Stg.	Stg.	Stg.	Stg.	Stg.	Stg.
Australia (a) ..	115.7	118.8	234.5	16 10 8	16 19 6	33 10 2
United Kingdom	885.5	439.5	1,325.0	18 12 1	9 4 8	27 16 9
Canada ..	165.2	203.5	368.7	14 13 8	18 1 7	32 15 3
India ..	124.0	145.1	269.1	0 6 9	0 7 11	0 14 8
New Zealand ..	39.5	44.8	84.3	25 13 2	29 2 3	54 15 5
Union of South Africa ..	90.4	33.9	124.3	8 18 0	3. 6 8	12 4 8
Argentine Republic ..	93.7	110.0	203.7	7 4 7	8 9 8	15 14 3
Belgium ..	135.4	150.1	285.5	16 2 11	17 18 0	34 0 11
China ..	36.0	27.7	63.7	0 1 7	0 1 3	0 2 10
Manchuria ..	100.7	38.1	138.8	2 14 6	1 0 7	3 15 1
Denmark ..	87.1	78.7	165.8	22 19 4	20 15 2	43 14 6
France ..	195.2	143.0	338.2	4 13 0	3 8 2	8 1 2
Germany ..	287.4	298.2	585.6	3 12 7	3 15 4	7 7 11
Italy ..	73.0	71.5	144.5	1 13 7	1 12 11	3 6 6
Japan ..	173.9	213.4	387.3	2 7 10	2 18 8	5 6 6
Netherlands ..	182.0	115.9	297.9	20 17 1	13 5 9	34 2 10
Netherlands East Indies ..	57.0	93.0	150.0	0 16 8	1 7 2	2 3 10
Norway ..	68.1	40.4	108.5	23 6 2	13 16 8	37 2 10
Poland ..	29.6	30.4	60.0	0 16 10	0 17 4	1 14 2
Sweden ..	134.4	101.5	235.9	21 6 0	16 1 7	37 7 7
Switzerland ..	93.6	64.8	158.4	22 4 9	15 4 0	37 8 9
U.S.A. ..	465.5	639.2	1,104.7	3 11 5	4 18 1	8 9 6
U.S.S.R.(Russia)	56.9	53.3	110.2	0 6 8	0 6 3	0 12 11

(a) Year ended 30th June, 1940.

§ 16. Trade of the United Kingdom with Australia compared with that of Competing Countries.

Proportion of Trade from United Kingdom and Competing Countries.—Since 1908 permanent resident Commissioners appointed by the British Board of Trade have been located in Australia for the purpose of advising manufacturers and merchants in the United Kingdom with regard to Australian trade affairs. From 8th August, 1907, the Commonwealth Customs Tariffs have provided preferential rates of Customs Duties on certain goods the produce or manufacture of the United Kingdom with the object of assisting the British manufacturer to retain or improve his position in this market, in relation to other countries. The main provisions in these Acts relating to preference are dealt with on previous pages in this Chapter.

In an investigation into the relative position occupied by the United Kingdom in the import trade of Australia, the comparison must, of course, be restricted to those classes of goods which are produced or manufactured in the United Kingdom. The imports into Australia include many commodities, such as tea, rice, raw coffee, unmanufactured tobacco, petroleum products, copra, timber, etc., which the United Kingdom could not supply. These items, in addition to others not available from that country, have, therefore, been omitted from the computation following.

The imports into Australia have been classified under nine headings, and the trade of the United Kingdom therein is compared with that of France, Germany, Japan, and

the United States of America. These countries have been selected as the principal competitors with the United Kingdom for the trade of Australia under the specified headings. Totals for the five years 1913 and 1935-36 to 1938-39 are shown in the following table.

Particulars for the war years are not comparable.

AUSTRALIAN IMPORTS OF PRODUCTS OF VARIOUS COUNTRIES: VALUE.

British Currency Values.

Nature of Imports.	Year.	United Kingdom.	France.	Germany.	Japan.	United States.	All Countries.
		£Stg.	£Stg.	£Stg.	£Stg.	£Stg.	£Stg.
Foodstuffs of animal origin	1913 ..	301,025	3,093	12,071	6,988	289,229	947,697
	1935-36	247,197	1,269	..	64,668	216,112	1,412,896
	1936-37	281,017	1,208	1,148	61,203	250,934	1,509,813
	1937-38	286,568	1,151	1,771	218,674	251,297	1,565,765
	1938-39	300,283	993	548	175,629	269,761	1,599,827
Spirituous and alcoholic liquors	1913 ..	1,227,561	343,394	143,426	1,689	2,805	1,947,248
	1935-36	602,630	49,706	2,098	..	1,670	696,103
	1936-37	537,672	53,024	2,268	82	286	633,133
	1937-38	625,655	52,800	3,436	82	917	727,220
	1938-39	613,874	58,642	4,320	157	1,180	719,967
Apparel, textiles, and manufactured fibres	1913 ..	12,254,561	961,025	1,712,395	475,973	623,542	19,935,750
	1935-36	9,476,808	258,601	489,813	3,223,969	280,505	17,292,354
	1936-37	11,074,231	248,517	523,529	2,358,656	119,571	18,059,604
	1937-38	12,288,251	336,375	607,471	3,204,718	187,856	21,019,945
	1938-39	10,033,422	411,056	503,713	2,545,081	281,766	17,756,098
Metals, metal manufactures, and machinery	1913 ..	13,905,483	217,148	2,380,152	7,657	3,817,705	21,670,212
	1935-36	13,550,189	30,267	1,043,439	286,280	6,848,650	25,206,625
	1936-37	16,142,468	42,731	1,345,057	248,435	6,061,105	27,277,464
	1937-38	21,171,615	63,465	1,636,328	187,350	9,360,634	37,280,008
	1938-39	18,246,658	53,404	1,449,405	167,570	6,886,329	31,274,421
Paper and stationery	1913 ..	1,789,577	21,930	266,483	10,656	403,679	3,134,750
	1935-36	3,052,273	52,786	208,138	78,785	292,268	3,293,820
	1936-37	3,042,380	57,158	234,769	82,581	318,546	3,933,131
	1937-38	3,367,801	51,847	262,435	142,464	390,223	6,009,609
	1938-39	2,945,640	51,572	316,741	88,448	372,572	6,185,576
Jewellery, time-pieces, and fancy goods	1913 ..	521,290	88,070	263,688	19,307	138,217	1,442,292
	1935-36	232,717	19,545	127,992	195,592	71,407	1,194,566
	1936-37	243,601	26,891	153,485	197,994	83,846	1,250,235
	1937-38	275,796	29,130	178,755	208,609	132,078	1,584,455
	1938-39	275,301	31,330	172,867	175,305	121,981	1,431,605
Earthenware, cements, glass, etc.	1913 ..	650,138	40,245	153,188	21,493	62,887	1,066,727
	1935-36	879,191	8,115	170,663	227,804	127,791	1,590,283
	1936-37	930,126	13,862	167,352	183,558	79,753	1,774,183
	1937-38	998,637	11,101	200,822	228,858	71,928	2,047,362
	1938-39	946,220	16,980	204,527	182,983	89,857	1,861,974
Drugs, chemicals, and fertilizers	1913 ..	1,020,647	245,426	304,179	139,178	210,758	2,721,902
	1935-36	1,902,253	215,782	352,333	175,803	622,350	4,370,127
	1936-37	1,880,605	208,572	499,370	130,362	567,083	4,151,446
	1937-38	2,056,472	203,987	498,487	136,677	786,052	5,304,092
	1938-39	2,288,387	196,220	476,737	47,651	1,003,679	5,598,553
Rubber and leather and manufactures thereof, and substitutes therefor	1913 ..	485,216	68,686	347,045	688	433,837	1,717,035
	1935-36	218,850	5,924	28,082	40,250	98,325	1,185,812
	1936-37	241,252	5,200	35,409	42,193	83,039	1,831,914
	1937-38	253,378	4,674	29,398	50,105	121,323	1,915,442
	1938-39	247,671	4,979	47,374	38,215	114,235	1,689,598
Total, above-mentioned imports	1913 ..	32,155,498	1,989,017	5,882,627	683,629	5,982,659	55,082,613
	1935-36	30,162,108	641,995	2,422,228	4,293,151	8,558,718	58,344,586
	1936-37	34,373,352	657,163	2,953,387	3,605,064	7,564,163	62,799,923
	1937-38	41,327,173	754,530	3,418,903	4,377,597	11,302,308	78,047,898
	1938-39	35,897,456	825,176	3,176,232	3,421,039	9,141,360	68,117,619
Total imports (less bullion and specie)	1913 ..	40,948,803	2,222,631	7,029,325	950,300	10,907,512	78,196,109
	1935-36	33,835,898	790,108	2,963,049	4,969,571	13,901,326	83,518,869
	1936-37	38,559,366	865,919	3,596,584	4,004,465	12,959,149	90,591,580
	1937-38	46,226,172	964,554	4,170,624	5,349,086	17,758,684	111,733,234
	1938-39	40,419,283	1,028,133	4,131,212	4,093,191	14,647,305	99,313,150

Stated as percentages the figures in the preceding table are shown below.

Particulars for the war years are not comparable.

AUSTRALIAN IMPORTS OF PRODUCTS OF VARIOUS COUNTRIES : PERCENTAGES.

Nature of Imports.	Year.	United Kingdom.	France.	Germany.	Japan.	United States.	All Countries
		%	%	%	%	%	%
Foodstuffs of animal origin	1913 ..	31.77	0.33	1.27	0.74	30.52	100
	1935-36	17.50	0.09	0.00	4.58	15.30	100
	1936-37	18.61	0.08	0.08	4.05	16.62	100
	1937-38	18.30	0.07	0.11	13.97	16.05	100
	1938-39	18.77	0.06	0.03	10.98	16.86	100
Spirituous and alcoholic liquors	1913 ..	63.04	17.64	7.37	0.09	0.14	100
	1935-36	86.57	7.14	0.30	0.00	0.24	100
	1936-37	84.92	8.37	0.36	0.01	0.05	100
	1937-38	86.03	7.26	0.47	0.00	0.13	100
	1938-39	85.26	8.15	0.60	0.02	0.16	100
Apparel, textiles, and manufactured fibres	1913 ..	61.48	4.82	8.59	2.39	3.13	100
	1935-36	54.80	1.50	2.83	18.64	1.62	100
	1936-37	61.32	1.37	2.89	13.06	0.66	100
	1937-38	58.47	1.60	2.89	15.25	0.89	100
	1938-39	56.51	2.32	2.84	14.33	1.59	100
Metals, metal manufactures, and machinery	1913 ..	64.17	1.00	10.98	0.04	17.62	100
	1935-36	53.76	0.12	4.14	1.14	27.17	100
	1936-37	59.17	0.16	4.93	0.91	22.22	100
	1937-38	56.80	0.17	4.39	0.50	25.11	100
	1938-39	52.51	0.15	4.17	0.48	19.82	100
Paper and stationery	1913 ..	57.41	0.70	8.50	0.34	12.88	100
	1935-36	57.64	1.00	3.93	1.49	5.52	100
	1936-37	51.27	0.96	3.95	1.39	5.36	100
	1937-38	50.95	0.78	3.97	2.16	5.90	100
	1938-39	47.62	0.83	5.12	1.43	6.02	100
Jewellery, time-pieces, and fancy goods	1913 ..	36.14	6.11	18.28	1.34	9.58	100
	1935-36	19.48	1.64	10.71	16.37	5.95	100
	1936-37	19.39	2.14	12.21	15.76	6.67	100
	1937-38	17.44	1.84	11.30	13.19	8.35	100
	1938-39	19.23	2.19	12.07	12.25	8.52	100
Earthenware, cements, glass, etc.	1913 ..	41.52	2.57	28.94	1.37	4.02	100
	1935-36	52.01	0.48	10.01	13.48	7.56	100
	1936-37	52.42	0.78	9.43	10.34	4.49	100
	1937-38	48.78	0.54	9.81	11.18	3.51	100
	1938-39	50.82	0.91	10.98	9.83	4.83	100
Drugs, chemicals, and fertilizers	1913 ..	37.49	9.02	11.18	5.11	7.74	100
	1935-36	43.53	4.94	8.06	4.02	14.24	100
	1936-37	41.64	4.61	10.85	2.88	12.55	100
	1937-38	38.77	3.85	9.40	2.58	14.82	100
	1938-39	40.87	3.50	8.52	0.85	17.93	100
Rubber and leather and manufactures thereof, and substitutes therefor	1913 ..	28.26	4.00	20.21	0.04	25.27	100
	1935-36	18.46	0.50	2.37	3.39	8.29	100
	1936-37	13.16	0.28	1.93	2.30	4.53	100
	1937-38	13.23	0.24	1.53	2.62	6.33	100
	1938-39	14.66	0.29	2.80	2.26	6.76	100
Total, above-memtioned articles	1913 ..	58.38	3.61	10.68	1.24	10.86	100
	1935-36	51.70	1.10	4.15	7.36	14.67	100
	1936-37	54.74	1.04	4.70	5.26	12.04	100
	1937-38	52.95	0.97	4.38	5.61	14.48	100
	1938-39	52.70	1.21	4.66	5.02	13.42	100
Total imports (less bullion and specie)	1913 ..	52.37	2.84	8.99	1.22	13.95	100
	1935-36	40.51	0.95	3.55	5.95	16.64	100
	1936-37	42.56	0.95	3.97	4.42	14.30	100
	1937-38	41.37	0.86	3.73	4.79	15.80	100
	1938-39	40.70	1.04	4.16	4.12	14.75	100

The total value of the commodities included in the competitive classes increased from £55,082,613 during 1913 to £122,631,560 during 1926-27, but declined during the economic depression to £29,576,008 in 1931-32. Subsequently the total value rose to £78,047,898 in 1937-38 only to fall away again in 1938-39 to £68,117,619. The principal classes of competitive imports are (a) metals, metal manufactures and machinery (value £31,274,421 in 1938-39) and (b) apparel, textiles and manufactured fibres (value £17,756,098 in 1938-39). The value of goods included in these two groups represented 72 per cent. of the total value of competitive commodities during 1938-39.

In 1938-39 the United Kingdom supplied 52.70 per cent. of the total value of competitive goods. In 1913 the corresponding figure was 58.38 per cent. and in 1937-38 52.95 per cent. In four of the nine competitive groups of imports, the proportion supplied by the United Kingdom declined during 1938-39 as compared with the previous year. In the five groups—foodstuffs of animal origin; jewellery, timepieces and fancy goods; earthenware, cement, glass, etc.; drugs, chemicals and fertilizers; rubber and leather and manufactures thereof, etc.—which showed gains, the share of the total purchases supplied by the United Kingdom, was 18.77 per cent., 19.23 per cent., 50.82 per cent., 40.87 per cent., and 14.66 per cent. respectively.

The share of Japan in the competitive trade increased in proportion to other countries from 1.24 per cent. in 1913 to 8.11 per cent. in 1934-35, but declined appreciably during the next three years to 5.02 per cent. in 1938-39, the most important classes of competitive goods imported from Japan being silk piece goods, cotton and linen piece goods, yarns, crockery, fancy goods and sulphur. The total value of imports from Japan in the competitive groups during 1938-39 was £3,421,039, and of this total silk piece goods valued at £1,160,761 represented 34 per cent., and cotton and linen piece goods valued at £726,050 represented 21 per cent., or together 55 per cent. of the total competitive goods imported from Japan.

The position of the United States of America in the competitive trade improved from 10.86 per cent. in 1913 to 23.52 per cent. in 1928-29; after 1929-30 it declined progressively to 8.17 per cent. in 1932-33, but recovered somewhat in subsequent years and in 1938-39 represented 13.42 per cent. of the total. Of the total competitive trade from this country approximately 75 per cent. was represented by metals, metal manufactures and machinery.

The position of France declined from 3.61 per cent. in 1913 to 1.21 per cent. in 1938-39 when apparel, textiles, and drugs, chemicals and fertilizers were the most important imports from France.

The proportion of the competitive imports supplied by Germany was 10.68 per cent. in 1913, 0.86 per cent. in 1923-24, and 4.66 per cent. in 1938-39. The principal classes of imports from Germany were manufactured metals and machinery, apparel and textiles, and drugs and chemicals.

§ 17. Oversea Trade in Calendar Years.

For the purpose of comparison with countries which record overseas trade in calendar years the following table has been compiled to show Australian imports and exports for each quarter of the calendar years 1941 to 1945:—

OVERSEA TRADE IN CALENDAR YEARS: AUSTRALIA.

Year.	Merchandise.		Bullion and Specie.		Total.	
	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.
	£ Stg.'000.	£'000.	£ Stg.'000.	£'000.	£ Stg.'000.	£'000.
QUARTER ENDED MARCH.						
1941 ..	23,520	{ (R) 33,335 (S) 26,615 }	732	{ (R) 6,179 (S) 4,943 }	24,252	{ (R) 39,514 (S) 31,558 }
1942 ..	27,177	{ (R) 35,632 (S) 28,449 }	798	{ (R) 39 (S) 31 }	27,975	{ (R) 35,671 (S) 28,480 }
1943 ..	57,781	{ (R) 33,381 (S) 26,651 }	710	{ (R) 2 (S) 2 }	58,491	{ (R) 33,383 (S) 26,653 }
1944 ..	52,078	{ (R) 36,349 (S) 29,021 }	439	{ (R) 1 (S) 1 }	52,517	{ (R) 36,350 (S) 29,022 }
1945 ..	46,855	{ (R) 35,243 (S) 28,139 }	487	{ (R) 2 (S) 1 }	47,342	{ (R) 35,245 (S) 28,140 }

(R) Recorded values, Australian currency.

(S) Estimated British currency values.

OVERSEA TRADE IN CALENDAR YEARS: AUSTRALIA—*continued*.

Year.	Merchandise.		Bullion and Specie.		Total.	
	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.
	£ Stg.'000.	£'000.	£ Stg.'000.	£'000.	£ Stg.'000.	£'000.

QUARTER ENDED JUNE.

1941 ..	27,554	{ (R) 34,108 (S) 27,232 }	644	{ (R) 4,481 (S) 3,584 }	28,198	{ (R) 38,589 (S) 30,816 }
1942 ..	37,194	{ (R) 43,259 (S) 34,538 }	274	{ (R) 13 (S) 11 }	37,468	{ (R) 43,272 (S) 34,549 }
1943 ..	56,445	{ (R) 29,895 (S) 23,868 }	410	{ (R) .. (S) .. }	56,855	{ (R) 29,895 (S) 23,868 }
1944 ..	40,463	{ (R) 32,520 (S) 25,964 }	788	{ (R) 1 (S) 1 }	41,251	{ (R) 32,521 (S) 25,965 }
1945 ..	48,221	{ (R) 39,139 (S) 31,249 }	327	{ (R) 2 (S) 1 }	48,548	{ (R) 39,141 (S) 31,250 }

QUARTER ENDED SEPTEMBER.

1941 ..	35,337	{ (R) 33,603 (S) 26,828 }	834	{ (R) 4,468 (S) 3,574 }	36,171	{ (R) 38,071 (S) 30,402 }
1942 ..	46,389	{ (R) 29,576 (S) 23,614 }	710	{ (R) 2 (S) 2 }	47,099	{ (R) 29,578 (S) 23,616 }
1943 ..	58,377	{ (R) 33,050 (S) 26,388 }	378	{ (R) .. (S) .. }	58,755	{ (R) 33,050 (S) 26,388 }
1944 ..	47,208	{ (R) 39,409 (S) 31,464 }	588	{ (R) 4 (S) 3 }	47,796	{ (R) 39,413 (S) 31,467 }
1945 ..	44,265	{ (R) 38,506 (S) 30,743 }	735	{ (R) 2 (S) 2 }	45,000	{ (R) 38,508 (S) 30,745 }

QUARTER ENDED DECEMBER.

1941 ..	33,554	{ (R) 34,190 (S) 27,297 }	743	{ (R) 5,128 (S) 4,103 }	34,297	{ (R) 39,318 (S) 31,400 }
1942 ..	51,492	{ (R) 30,201 (S) 24,112 }	505	{ (R) .. (S) .. }	51,997	{ (R) 30,201 (S) 24,112 }
1943 ..	59,111	{ (R) 34,753 (S) 27,747 }	2,591	{ (R) 8 (S) 0 }	61,702	{ (R) 34,761 (S) 27,753 }
1944 ..	43,761	{ (R) 39,470 (S) 31,513 }	1,037	{ (R) 3 (S) 2 }	44,798	{ (R) 39,473 (S) 31,515 }
1945 ..	38,580	{ (R) 41,269 (S) 32,949 }	186	{ (R) 423 (S) 338 }	38,766	{ (R) 41,692 (S) 33,287 }

(R) Recorded values, Australian currency.

(S) Estimated British currency values.

OVERSEA TRADE IN CALENDAR YEARS: AUSTRALIA—*continued*.

Year.	Merchandise.		Bullion and Specie.		Total.	
	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.
	£ Stg.'000.	£'000.	£ Stg.'000.	£'000.	£ Stg.'000.	£'000.
TOTAL FOR YEAR.(a)						
1941 ..	119,965	{ (R) 135,236 (S) 107,972 }	2,953	{ (R) 20,256 (S) 16,204 }	122,918	{ (R) 155,492 (S) 124,176 }
1942 ..	162,252	{ (R) 138,668 (S) 110,713 }	2,287	{ (R) 54 (S) 44 }	164,539	{ (R) 138,722 (S) 110,757 }
1943 ..	231,714	{ (R) 131,079 (S) 104,654 }	4,089	{ (R) 10 (S) 8 }	235,803	{ (R) 131,089 (S) 104,662 }
1944 ..	183,510	{ (R) 147,748 (S) 117,962 }	2,852	{ (R) 9 (S) 7 }	186,362	{ (R) 147,757 (S) 117,969 }
1945 ..	177,921	{ (R) 154,157 (S) 123,080 }	1,735	{ (R) 429 (S) 342 }	179,656	{ (R) 154,586 (S) 123,422 }

(R) Recorded values, Australian currency.

(S) Estimated British currency values.

(a) Excludes estimated unrecorded exports, £A.'000, 1942-43, 2,500; 1943-44, 10,000; and 1944-45, 2,000.

§ 18. Excise.

Although excise goods have no immediate bearing on overseas trade the rates of excise duty are in some cases related to the import duty on similar goods. Moreover as the Excise Acts are administered by the Department of Trade and Customs it is convenient to publish here the quantities of Australian produce on which excise duty has been paid. Particulars of Customs and Excise Revenue are shown in Chapter XVIII. "Public Finance". The following table shows the quantities of spirits, beer, tobacco, etc. on which excise duty was paid in Australia during the years 1941-42 to 1944-45 as compared with the year 1938-39.

QUANTITIES OF SPIRITS, BEER, TOBACCO, ETC., ON WHICH EXCISE DUTY WAS PAID : AUSTRALIA.

Article.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	Proof gal.	Proof gal.	Proof gal.	Proof gal.	Proof gal.
Spirits—					
Brandy	198,583	219,391	241,501	304,213	326,993
Gin	269,118	278,693	370,535	460,819	491,046
Whisky	157,705	264,196	384,001	394,857	371,688
Rum	347,648	339,045	360,465	336,008	304,686
Liqueurs	5,705	15,872	27,064	37,842	41,278
Spirits, n.e.i. ..	170	203	258	220	424
Spirits for Industrial or Scientific Purposes ..	114,129	149,661	184,681	211,138	207,366
Spirits for Fortifying Wine	770,997	1,187,167	1,655,594	1,581,048	1,759,546
Spirits for making Vinegar	17,965	26,234	53,620	69,015	70,305
	gal.	gal.	gal.	gal.	gal.
Amylic Alcohol and Fusel Oil	23	27	82	129	36
Methylated Spirit ..	..	2,010,613	2,915,782	3,341,131	3,511,612

QUANTITIES OF SPIRITS, BEER, TOBACCO, ETC., ON WHICH EXCISE DUTY
WAS PAID : AUSTRALIA—*continued.*

Article.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	proof gal.	proof gal.	proof gal.	proof gal.	proof gal.
Spirits for the manufacture of Essences	57,376	79,641	65,539	72,556	89,398
Spirits for the Manufacture of Scents, etc.	47,778	71,504	85,247	123,117	115,190
	gal.	gal.	gal.	gal.	gal.
Beer	83,904,645	98,125,882	90,407,477	94,323,856	94,578,430
	lb.	lb.	lb.	lb.	lb.
Tobacco — Manufactured, n.e.i.	15,734,675	16,815,279	17,512,696	16,641,335	15,219,618
Tobacco—Hand-made ..	41,774	7,874	119	..	..
Tobacco—Unmanufactured, etc.	5,604,256	5,527,032	4,480	..	..
Total, Tobacco ..	21,380,705	22,350,185	17,517,295	16,641,335	15,219,618
	lb.	lb.	lb.	lb.	lb.
Cigars—Machine-made ..	71,051	77,454	58,508	48,151	38,212
Cigars—Hand-made ..	187,450	181,561	115,195	86,468	77,418
Total, Cigars ..	258,501	259,015	173,703	134,619	115,630
	lb.	lb.	lb.	lb.	lb.
Cigarettes—Machine-made ..	6,891,144	7,886,965	7,962,605	7,980,175	7,413,219
Cigarettes—Hand-made ..	114	..	..	..	..
Total, Cigarettes ..	6,891,258	7,886,965	7,962,605	7,980,175	7,413,219
	..	..	lb.	lb.	lb.
Snuff .. ..	..	..	400	585	662
	60 papers or tubes.	60 papers or tubes.	60 papers or tubes.	60 papers or tubes.	60 papers or tubes.
Cigarette Tubes and Papers	101,977,824	112,019,581	116,623,753	120,223,568	109,594,422
	gross of boxes.	gross of boxes.	gross of boxes.	gross of boxes.	gross of boxes.
Matches	3,278,759	3,201,516	3,159,028	2,998,769	2,989,582
	gal.	gal.	gal.	gal.	gal.
Petrol	27,878,912	36,537,649	14,139,033	10,399,209	9,324,996
	doz. packs.	doz. packs.	doz. packs.	doz. packs.	doz. packs.
Playing Cards	117,412	124,912	93,313	88,761	87,836
	..	lb.	lb.	lb.	lb.
Carbonic Acid Gas ..	..	6,481,334	6,786,719	6,278,607	6,421,510
Dry Batteries and Cells ..	..	2,665,157	4,351,109	2,908,705	3,635,369
Saccharin .. ..	..	..	1,887	7,366	4,779

§ 19. Interstate Trade.

Prior to the federation of the Australian Colonies (now States), each Colony published statistics of its trade with the other Colonies. A similar record was continued by the Commonwealth Government under the provisions of the Constitution (Section 93). On the expiry of the "book-keeping" period, these records were discontinued as from 13th September, 1910, and the latest published statements were for the year 1909. Later the Governments of Western Australia and Tasmania revived the records, and statistics of the subject are available again for those States.

At the Conference of Statisticians held in January, 1928 it was resolved that efforts should be made in other States to record the interstate movement of certain principal commodities.

The Government Statist for South Australia publishes some figures for that State made up from the records of Western Australia and Tasmania, and from various other sources. Since February, 1940, statistics in some detail have been collected by the Government Statistician of Queensland. The statistics of interstate trade for New South Wales and Victoria are very meagre. The Melbourne Harbour Trust publishes, in its annual report, the quantities of various commodities of interstate trade loaded and discharged in the Port of Melbourne. The trade with individual States is not disclosed.

CHAPTER XIII.—LABOUR, WAGES AND PRICES.

A.—RETAIL PRICES AND PRICE INDEXES.

§. 1. Collection of Information as to Retail Prices.

The retail prices of the extensive range of commodities and services in common demand (commonly referred to as the "regimen") used in compiling the All Items ("C" series) retail price index have been ascertained at frequent and regular intervals since 1923 for each of the six capital cities and for 27 of the more important towns of Australia. Comparable information is available for the month of November in each year 1914 to 1922 for each of the six capital cities. The complete list of items covered by the retail price regimen is published in the annual *Labour Report*, and a summary of the main groups and sections of the regimen is given in § 6 hereof.

The prices of food and groceries in approximately 200 towns throughout Australia were collected as at November of each year from 1913 to 1942 when collection was temporarily suspended as a war-time economy.

Retail prices of food and groceries and average rentals of houses for earlier years extending back to 1901 were collected by this Bureau, and in some cases have been recorded by the Statisticians of various States as far back as 1864.

The methods by which prices used in the "C" series retail price index-numbers are ascertained and the measures adopted to ensure their accuracy and comparability are briefly as follows:—

- (i) Representative and reputable retailers are selected for each city and town covered by the collection and each is required to furnish a return of prices monthly in respect of food and groceries and quarterly in respect of other items. Prices for each item are obtained where practicable from about ten retailers in each of the capital cities, and from about five retailers in each of the provincial towns.
- (ii) These returns are collected under authority of the *Census and Statistics Act* 1905-1938 which requires that returns be supplied accurately and promptly and ensures that particulars supplied by individual retailers will not be divulged to competitors or to any other person or Government authority. Penalties are provided against failure to supply returns, against supplying false information, and against failure to answer truthfully any question asked by an authorized officer in respect of the contents of the return.
- (iii) The actual collection of returns is carried out by qualified Field Officers of the Commonwealth Bureau of Census and Statistics working under the supervision of the Statisticians of the respective States. These Field Officers have very wide powers of investigation, including entry of premises and inspection of goods, records, etc.

- (iv) The Field Officers not only receive and check returns but visit the retail shops concerned, whenever necessary, to verify returns. In respect of articles of clothing and the like, where variation of quality may be considerable, Field Officers are equipped with samples of the goods used for price comparisons. In such cases the Field Officers visit every retail informant at each quarterly collection and personally inspect the relevant goods and prices thereof.
- (v) Before each quarterly collection Supervising Field Officers review the whole of the items for which prices are collected after making extensive inquiries among manufacturers, wholesalers and retailers. These Supervising Field Officers periodically accompany Field Officers at their price collections and check their work. This not only ensures accuracy and assiduity but also that all Field Officers work on uniform lines and that, as far as care and effort can make it possible, prices for identical goods and quality will be recorded at all times and for all places.
- (vi) The list of items in the regimen and the standards thereof are revised from time to time to keep them in harmony with changing conditions. Where such changes become necessary suitable adjustment is made in computing the retail price index to ensure that it reflects changes in price with due precision and that it is not vitiated by the influence of other changes. (See also § 8, hereof.)
- (vii) Returns of rents for unfurnished houses of four and five rooms are made at the middle of each quarter by a representative number (ranging up to 30) of house agents in each city and town, for brick and wooden houses respectively, classified according to number of rooms. These returns show the weekly rental of a substantial number of individual houses each of which is selected by the Field Officer as suitable for inclusion in a sample designed to measure the quarterly ratio of change in weekly rentals. The aim is to measure variations which may be equivalent to change in price for a constant standard. The ratio of change is used to vary basic average rentals derived from the Census of 1933 and other records. Although, expressed in money terms, the average rentals as published are essentially indexes. As such they do not necessarily indicate the average amount of rental actually paid for all rented houses, and still less do they indicate the rental at which vacant or new houses can be rented.

§. 2. Retail Price Index-Numbers.

1. **General.**—The basic principle of a retail price index-number is relatively simple. It is to select commodities representative of the field to be covered and to combine their prices at regular intervals in accordance with their relative importance in that field. The aim is to measure the degree of change in prices for the selected field taken as a whole.

In practice the application of this principle over a term of years presents great difficulty by reason of the numerous changes which occur in the type, grade and quantities of many of the items commonly used.

A full explanation of the methods adopted and an analysis of problems involved is contained in the Appendix to *Labour Report* No. 9.

For convenience the group of selected items is called a "regimen", and the quantities consumed per annum of each item used in the index are called "mass units" or "weights". These terms are used herein. In compiling the index the price of each item is multiplied by its quantity "weight", and then by its appropriate population or household "weight". The sum of these products for all items at any given date represents an "aggregate expenditure". The "aggregate expenditures" for successive periods are converted into an index by denoting the aggregate of a selected or "base" period as 1000, and calculating all index-numbers to such base by the proportion which their aggregates bears to that of the base period. (See also § 6 (2) hereof.)

2. **Essential Features.**—Apart from clear thinking, common sense and sound arithmetic, the prime essentials in compiling a retail price index are—

- (a) that prices be accurately ascertained at regular intervals for goods of constant grade and quality;
- (b) that the regimen be as representative as possible of the field to be covered;
- (c) that the weights be in approximate proportion to quantities actually used in the selected field.

3. **The Regimen.**—The regimen must be a selected regimen because it is impossible in practice to ascertain at regular intervals prices of every item of goods and services entering into household expenditure. Even in normal times there is considerable difficulty in ensuring that the selected items are always a true sample. Some items which it would be desirable to include must be excluded because comparative prices cannot be accurately ascertained for them at different times and different places. It is deemed better to limit the regimen of the index to items for which price variations can be ascertained with reasonable accuracy than to distend the regimen by including items for which price comparisons are necessarily inaccurate. Similarly, many items of small aggregate or individual importance are excluded. The regimen of the index therefore is not (as is sometimes erroneously supposed) a basic wage regimen nor yet is it a full list of component items in a standard of living. It does not imply that any particular goods or any selected grades or quantities of these goods should enter into determination of a basic or living wage. In fact the regimen used for the "C" series retail price index-number is simply a selected list of items combined in certain proportions for purpose of measuring price variations. The items are representative of the fields covered, and the proportions approximate to those in average consumption so far as can be ascertained.

The "regimen" and "weights" used in the "C" series retail price index-numbers are published in full in the annual *Labour Report*. The regimen at the moment comprises 160 commodities and services, consisting of 20 items of Groceries; 6 of Dairy Produce; 15 of Meat; 1 of Rent; 77 of Clothing and Footwear; and 41 of Miscellaneous Household Expenditure comprising Household Drapery (9), Household Utensils (20), Fuel and Light (4), Union and Lodge Dues, Medicine, Newspapers, Recreation, Smoking, Fares and School Requisites (8).

4. **Purpose of Retail Price Index-Numbers.**—The retail price indexes are designed to measure the extent of changes in price levels only. While they may be used as indicating proportionate variations in cost of a *constant* standard of living, they do not measure the absolute cost of any standard of living, nor the cost of changes in the standard of living. In other words, they measure as nearly as may be the proportionate change in aggregate cost of specified quantities of the selected "regimen" of items included in the index. The regimen is representative of a high proportion of the expenditure of wage-earner households.

5. **Effects of War Conditions on Index.**—Under war-time conditions scarcity of certain types of goods, erratic supply and changes of grade due to standardization have created unusual difficulty in obtaining the data necessary for measuring variations in prices. In some instances, this has rendered it necessary to substitute new grades, qualities or types of articles for those formerly used as indicators of changes in price. This has been the case more particularly in the clothing, household drapery and household utensils sections of the index. Substitutions of similar kind were necessary at times under normal conditions in order to meet changes of fashion and usage. In themselves, such substitutions are not injurious to the index provided the transitional difficulties can be solved as they arise. No change in principle is involved. The index continues to measure, as accurately as may be, price variations, and price variations only. Just as in the pre-war period, application of multipliers (called "grafting factors") serves to neutralize those differences in prices which are solely due to substitution of a new item for one which has ceased to be available or in common use. The net effect of this process is that the price of the old item is taken as typical of price variation in its class up to the time of substitution, and the prices of the new item as typical of such changes in price thereafter.

In normal times, popular usage of items in general consumption changes slowly, and the weight of items and groups in the regimen is changed only at long intervals. In war-time scarcity of supplies of some goods, rationing and kindred factors actually produce substantial changes in usage both long term and short term. The weights of the retail price indexes have not been changed and continue as in pre-war years. (See § 8 (3) hereof.)

The "C" series retail price index, as published, measures the aggregate variation in prices of the regimen of items adopted in peace times in peace-time proportion. This ensures comparability of the index on that specific basis. Its practical significance under war conditions is limited because a single index cannot take into account all changes that occur.

If it were practicable, it would be desirable to compile an additional index to measure variations over the war period, having regard to the fact that the relative consumptions of some items of the regimen have been altered by war conditions, and that the prices of some items not included in the regimen have moved differently from the variations recorded by the "C" series index. This would provide an alternative method of comparison presenting another aspect of price movement in war-time.

§ 3. Various Series of Retail Price Index-Numbers.

Two main series of retail price index-numbers are compiled and shown in some detail in the following pages, viz. :—

- (i) the "B" series relating only to food, groceries and housing, continuously available since 1907;
- (ii) the All Items ("C" series) relating to food, groceries, housing, clothing, household drapery and utensils, fuel and light, and other miscellaneous items of household expenditure, continuously available from 1914.

The "B" series comprises only the food, groceries and housing sections of the All Items ("C" series) index.

Subject to consideration of special war-time influences, the "C" series in total provides a reliable measure of aggregate variations in retail prices (as well as of group indexes for component sections) of a high percentage of goods and services used in wage-earner households. This index is compiled for—

- (a) the capital city of each of the six States,
- (b) four other principal towns in each of the six States,
- (c) weighted average of five towns (including capital city) in each of the six States,
- (d) weighted average for the six capital cities combined,
- (e) weighted average for the Thirty Towns (including capital cities),
- (f) separate indexes for Warwick, Port Augusta and Canberra.

This index forms the basis of the "Court" series index used by the Commonwealth Court of Conciliation and Arbitration for the "cost of living" adjustments of wages prescribed by awards made by the Court. (See § 9 of this Chapter.)

§ 4. Retail Price Levels 1914-1945.

The aggregate indexes for 1914, 1921, 1929 and 1938 to 1944 for the Thirty Towns are published in summary form on page 397 hereof, while the following table furnishes the relevant index-numbers for the Six Capital Cities as a whole, for certain significant dates since November, 1914—the earliest date for which this index is available.

ALL ITEMS ("C" SERIES) RETAIL PRICE INDEX-NUMBERS.

WEIGHTED AVERAGE OF SIX CAPITAL CITIES.

(Base : 1923-27 = 1,000.)

1914, November	..	..	..	687 (Beginning of War I.)
1918, November	..	..	..	905 (End of War I.)
1920, November	..	..	..	1,166 (Post-War peak)
1922, November	..	..	..	975 (Post-War trough)
1929, Year	..	..	..	1,033 (Pre-Depression peak)
1933, Year	..	..	..	804 (Depression trough)
1939, September Quarter	..	..	..	916 (Pre-War II)
1943, March Quarter	..	..	..	1,123 (Pre-Price Stabilization)
1943, June Quarter	..	..	..	1,143 (War II. peak)
1944, December Quarter	..	..	..	1,126
1945, December Quarter	..	..	..	1,129

These indexes reveal a rise of approximately 32 per cent. during the first world war, followed by a further rise of 29 per cent. in the two post-war years (November, 1918, to November, 1920). From November, 1920 to November, 1922, there was a fall of 16 per cent., and the index remained relatively stable until the onset of the depression in 1929. During the four years of the depression 1929 to 1933 the index fell by 22 per cent., rising thereafter steadily until 1939 when it was nearly 14 per cent. above the level of 1933, and approximately at the level it had occupied at the date of the Armistice of 1918. Between the outbreak of the present war (September, 1939) and March, 1943, the index rose by approximately 23 per cent. to a level slightly below that reached at the height of the post-war boom in 1920.

Price control was established by the Government immediately after the outbreak of the war under Regulations dated 28th September, 1939, and a national policy of price stabilization was applied as from 12th April, 1943, backed by more stringent price control and price subsidies. The retail price level, as measured by the index, remained relatively steady throughout the year 1944 at the level of March, 1943. This stabilized level is approximately 23 per cent. above that of 1939 and 63 per cent. above the level prevailing at the beginning of the first world war in 1914.

An account of price control measures and of price stabilization in Australia is published on pp. 404-8.

The movement in the various sections of the index and in the index as a whole for each year for which it has been compiled is shown in the following table :—

THE ALL ITEMS ("C" SERIES) RETAIL PRICE INDEX AND ITS SECTIONAL OR "GROUP" INDEX-NUMBERS. FOR THE SIX CAPITAL CITIES COMBINED, 1914 TO 1944.

(Base of Each Section : Weighted Average of Six Capital Cities, 1923-27 = 1,000) (a).

Period.	Food and Groceries.	Rent (4 and 5 Rooms). (r)	Food, Groceries and Rent (4 and 5 Rooms) ("B" Series).	Clothing.	Miscellaneous.	All Items ("C" Series).
1914 (b)	641	649	644	754	749	687
1915 (b)	812	659	777	792	786	782
1916 (b)	812	665	760	881	802	795
1917 (b)	836	683	782	992	882	847
1918 (b)	861	722	812	1,097	972	905
1919 (b)	1,026	768	934	1,238	1,036	1,022
1920 (b)	1,209	851	1,082	1,365	1,194	1,166
1921 (b)	950	877	924	1,246	1,010	1,013
1922 (b)	945	920	939	1,052	999	975
1923.. ..	1,009	950	988	1,045	999	1,003
1924.. ..	960	988	975	1,003	1,004	987
1925.. ..	998	1,008	1,002	991	992	997
1926	1,023	1,026	1,024	986	998	1,011
1927.. ..	1,000	1,030	1,011	975	1,008	1,002
1928.. ..	985	1,066	1,014	997	1,010	1,009
1929.. ..	1,044	1,073	1,054	996	1,007	1,033
1930.. ..	941	1,047	978	951	999	975
1931.. ..	826	901	852	853	973	873
1932.. ..	796	817	803	804	958	830
1933.. ..	751	804	768	787	950	804
1934.. ..	783	810	792	785	944	817
1935.. ..	806	839	818	783	946	832
1936.. ..	825	879	844	792	947	850
1937.. ..	851	912	872	811	960	873
1938.. ..	886	942	906	829	961	897
1939.. ..	927	965	939	841	962	920
1940.. ..	939	973	950	956	998	957
1941.. ..	947	976	956	1,118	1,060	1,008
1942.. ..	1,031	976	1,007	1,308	1,112	1,091
1943.. ..	1,037	975	1,011	1,440	1,160	1,131
1944.. ..	1,026	976	1,004	1,435	1,165	1,126
Quarter—						
1939—March ..	935	959	942	832	960	919
June ..	925	963	938	836	961	917
September ..	920	967	936	836	961	916
December ..	927	969	941	858	967	926
1940—March ..	917	971	936	888	973	930
June ..	944	972	953	936	997	954
September ..	937	973	949	959	1,007	959
December ..	956	974	961	1,040	1,013	986
1941—March ..	958	976	963	1,057	1,039	995
June ..	939	976	951	1,104	1,047	1,000
September ..	936	976	949	1,128	1,073	1,009
December ..	954	976	960	1,182	1,080	1,020
1942—March ..	991	977	983	1,216	1,095	1,053
June ..	1,025	976	1,003	1,285	1,099	1,081
September ..	1,055	976	1,022	1,342	1,110	1,106
December ..	1,051	976	1,019	1,388	1,144	1,122
1943—March ..	1,040	975	1,012	1,409	1,149	1,123
June ..	1,058	975	1,023	1,466	1,158	1,143
September ..	1,036	975	1,010	1,450	1,165	1,133
December ..	1,015	975	997	1,456	1,168	1,123
1944—March ..	1,020	976	1,000	1,434	1,166	1,124
June ..	1,026	976	1,004	1,429	1,165	1,125
September ..	1,036	975	1,010	1,433	1,164	1,129
December ..	1,022	975	1,002	1,442	1,163	1,126

(a) See footnote (a) on page 389.

(b) November.

(c) See footnote (b) on page 389.

§ 5. Increases in Retail Prices over War Period.

1. **Australia.**—The following statement shows for the Six Capitals separately, and as a whole, the percentage increases which have taken place in retail prices over the war period, from the September quarter 1939, to the December quarter 1944, inclusive. The proportionate increase in the total index for each capital city is shown in the line marked "Total". The column headed "C" series index dissects the total percentage rise to show what part of it was due to the rise in prices in each of the four main groups of items. Thus, of the 22.4 per cent. increase for Sydney 3.5 was due to food and groceries, 0.1 to house rent, 14.2 to clothing and 4.6 to miscellaneous items. The column headed "Group Index" shows the percentage increase in prices of items in each group considered as a group. Thus, for Sydney, prices in the food and groceries group increased by 9.9 per cent., house rents by 0.4 per cent., prices of clothing by 71.3 per cent. and prices of miscellaneous items by 24.5 per cent. These when weighted and combined in the proportions of the "C" series index showed a rise of 22.4 per cent. For the Six Capital Cities as a whole the increase over the war period shown was 22.9 per cent.

Group.	Sydney.		Melbourne.		Brisbane.	
	"C" Series Index.	Group Index.	"C" Series Index.	Group Index.	"C" Series Index.	Group Index.
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
Food and groceries	3.5	9.9	4.5	12.2	4.3	12.2
House rent ..	0.1	0.4	0.4	1.7	0.2	0.9
Clothing ..	14.2	71.3	15.4	77.9	15.1	71.5
Miscellaneous ..	4.6	24.5	3.7	18.9	3.8	18.7
Total ..	22.4	22.4	24.0	24.0	23.4	23.4

Group.	Adelaide.		Perth.		Hobart.		Six Capitals.(a)	
	"C" Series Index.	Group Index.	"C" Series Index.	Group Index.	"C" Series Index.	Group Index.	"C" Series Index.	Group Index.
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
Food and groceries	4.0	11.3	4.2	11.1	4.9	13.4	4.0	11.1
House rent ..	0.1	0.2	0.1	0.6	0.1	0.6	0.2	0.8
Clothing ..	13.5	64.5	14.0	68.9	13.9	67.1	14.6	72.5
Miscellaneous ..	4.0	18.9	3.8	19.5	3.3	16.9	4.1	21.0
Total ..	21.6	21.6	22.1	22.1	22.2	22.2	22.9	22.9

(a) Weighted average.

The foregoing comparisons refer to two points of time (i.e., the months immediately preceding the war and the closing months of 1944), at each of which special temporary factors may have influenced relative price levels. For instance, prices of certain foods (e.g., meat) fluctuate with seasonal conditions. The percentage increases shown do not, therefore, necessarily indicate the degree of increase due solely to war causes.

2. **International Comparisons.**—In the following table comparisons are made for both the present and the last war periods of the increases which occurred in the several countries shown:—

RETAIL PRICE INDEX-NUMBERS.

(FOOD, RENT, CLOTHING, MISCELLANEOUS HOUSEHOLD EXPENDITURE.)

Date.	Australia.	Great Britain.	Canada.	New Zealand.	Union of South Africa.	United States of America.
(A): 1914-1919.						
	(a)				(b)	
1914 July	100	100	100	100	100(c)	100
1915 Year	114	125	97	108	103	102
1916 "	116	148	102	115	106	109
1917 "	123	180	130	125	114	128
1918 "	132	203	146	135	118	156
1919 "	149	208	155	145	126	175
(a) November.	(b) Food, Fuel, Light and Rent.	(c) Average for year 1914.				

(B): 1939-1945.

1939—					(a)	
September Quarter	100	100	100	100	100	100
1940—Year (b) ..	105	119	105	104	104	100
1941— " (b) ..	110	104	111	108	109	105
1942— " (b) ..	119	129	116	111	118	116
1943—				(c)		
March Quarter	123	128	116	115	127	121
June " ..	125	128	117	114	125	124
September " ..	124	128	118	113	126	123
December " ..	123	128	118	114	127	124
Year	124	128	117	114	126	123
1944—						
March Quarter	123	129	118	114	128	123
June " ..	123	129	118	114	130	124
September " ..	123	130	118	114	129	126
December " ..	123	129	118	114	132	126
Year	123	129	118	114	130	125
1945—						
March Quarter	123	130	118	114	132	126
June " ..	123	131	118	114	133	127
September " ..	123	132	119	114	133	128
December " ..	123	131	119	114	133	128
Year	123	131	119	114	133	127

(a) Food, Rent and Miscellaneous Expenditure. (b) See Labour Reports for quarterly figures. (c) Old Index as varied by new War-time Index (Base December Quarter, 1942 = 100).

At various stages during the 1914-18 War most of these countries introduced some measures of price control. But at an early stage in the present war these countries introduced price control measures which became more stringent as the war progressed, culminating in a policy of price stabilization.

Immediately after the outbreak of war, the Commonwealth Government took steps to control prices, and, by proclamations issued from day to day, pegged prices of various commodities at those ruling on 31st August, 1939. The National Security (Prices) Regulations, proclaimed on 28th September, 1939, under the authority of the National Security Act, established the basic principles of war-time price control, and provided for the appointment of a Commonwealth Prices Commissioner, conferring upon him extensive powers to control the price of goods declared for that purpose by the Minister for Trade and Customs. A brief summary of the development of this control is published on page pp. 404-8.

§ 6. Construction of All Items ("C" Series) Retail Price Index.

1. The "Regimen".—The "regimen" from which the "C" series retail price indexes are compiled consists of a list of commodities and services which commonly enter into the consumption of the average household in respect of which comparative prices can be ascertained with due precision from time to time and place to place. (See Section 2 (3.) hereof.) The regimen is divided into the following Groups and Sections:—

Group.	Section.
I. Food and Groceries ..	A.—Groceries. B.—Dairy Produce. C.—Meat.
II. Housing	D.—House Rent. E.—Clothing—Man. F.—Clothing—Woman.
III. Clothing	G.—Clothing—Boy (10½ years). H.—Clothing—Girl (7 years). J.—Clothing—Boy (3½ years).
IV. Miscellaneous	K.—Household Drapery. L.—Household Utensils. M.—Fuel and Light. N.—Other Miscellaneous.

The All Items "C" series index includes the whole of the foregoing Groups, but for many purposes indexes are required for individual Groups or Sections. For this reason the following indexes are regularly compiled at the intervals shown, and published in various publications issued by the Bureau:—

Group. (a)	Content.	Frequency.
I.	Food and Groceries	Monthly
II.	Housing (4 and 5 rooms) (b) .. .	Quarterly
I, and II.	Food, Groceries and Housing (4 and 5 rooms) ("B" Series)	Quarterly
III.	Clothing	Quarterly
IV.	Miscellaneous Household Requirements ..	Quarterly
I., II., III. and IV.	Food, Groceries, Housing (4 and 5 rooms), Clothing and Miscellaneous ("C" series) ..	Quarterly
I.	Food and Groceries ("200 Towns" series) (c) ..	Yearly

(a) "Group" or "Sectional" index-numbers in the various tables throughout this publication cannot be compared with each other in order to show the *relative cost* of Food and Groceries, Housing, Clothing or Miscellaneous requirements, since each "Group" or "Section" (or combination thereof) has its own Base = 1,000, viz., the weighted average cost for the Six Capital Cities as a whole during the five-yearly period 1923-1927 for that "Group" or "Section". (b) *Rent*.—The rent index-numbers shown in the tables in this publication measure the proportionate rise and fall in the average weekly rentals paid for houses of four and five rooms taking corresponding houses throughout. They are "price" indexes in the strict sense, i.e., they are designed to measure only the "price" element in rent fluctuations. Similarly, "average rents" where shown are indexes of "price" changes in rentals expressed in terms of pence. They are not the average of rents actually paid by all tenants of 4 and 5-roomed houses. It would be inappropriate to include the average of rents actually paid in an index designed to measure price changes only. The average of rents actually paid is ascertained periodically by Census methods—see also page 2 of Labour Report, No. 33. (c) Compilation suspended as a war-time economy after November, 1942.

For convenience of reference several of the indexes mentioned above have been given the "series" designation shown against them. These indexes are dealt with in turn in the following pages.

2. **The Mass Units (or "Weights").**—The "mass units" (or "weights") are multipliers representing the approximate average annual consumption *per head or per household* under normal conditions. The index numbers are computed on a "total annual expenditure" basis, i.e., the total annual expenditure from time to time by a *standard population* in respect of the selected regimen of commodities and services commonly entering into household consumption, and of a constant *standard quality*. As a first step, therefore, it is necessary to multiply the price of each item by its "weight" per head or per household as the case may be. Thus, the "weight" of bread is 100 2-lb. loaves per head; of sugar 100 lb. per head; of towels 3 per household; and of housing 52 rent-weeks per household. The result of this initial calculation is designated the "P. MU" aggregate (i.e., Prices x Mass Units).

The sum of the above "P. MU" results for each Section or Group is then multiplied by its appropriate population or household "weight" to produce their respective annual aggregate expenditures. Thus, Sections A to C (Food and Groceries) would be multiplied by the total population; Section D (Housing) by the total number of households; Sections E to J (Clothing) by the proportion of the total population applicable to each; and Sections K to N (Miscellaneous) by the total number of households.

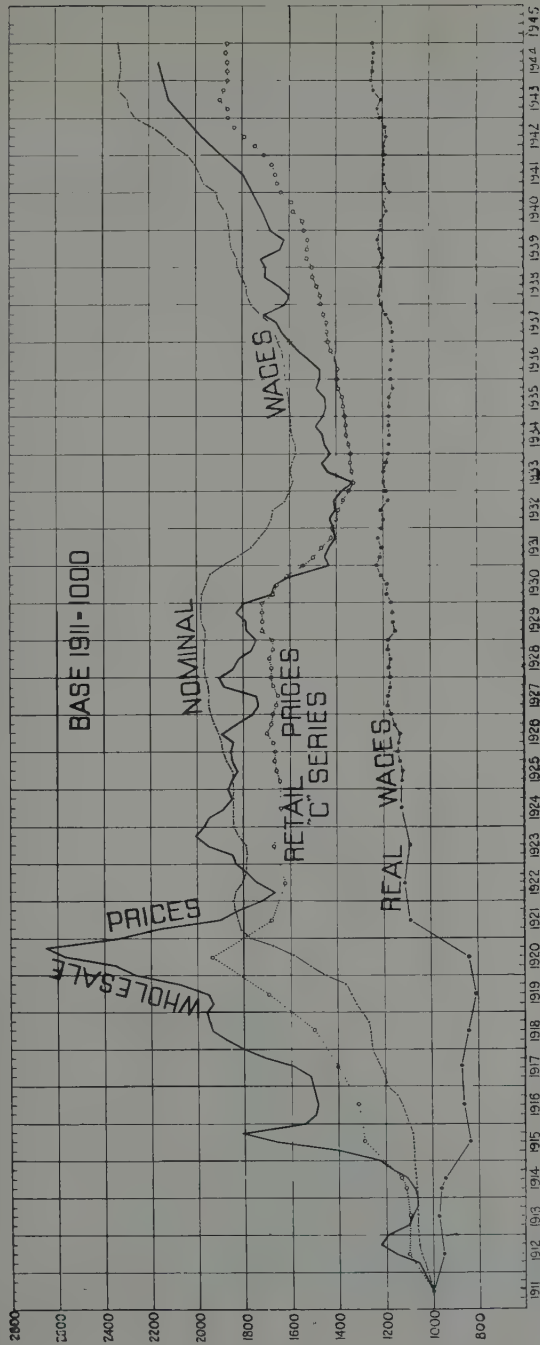
The combination of the aggregates from the last paragraph gives the "total annual aggregate expenditure" for the whole regimen, from which the "C" Series index-number is derived by applying to 1,000 the ratio which the aggregate for any period bears to the aggregate selected as the base period of the index. In the process of tabulation all prices are converted to pence for these final aggregates.

For tabulating purposes some of these "mass units" are varied when necessary to make up a deficiency or cancel out an excess in the aggregate resulting from a *change in the standard* of any item upon which prices are collected, to ensure that such changes shall not be wrongly recorded by the index as *variations* in prices. The published "mass units", however, still continue to show the correct *relative* consumption "weights" actually applicable to the commodities and services in the regimen for the *constant standards* used in the index. See also § 2 (3) and 6 (3) of this chapter.

In the case of Food and Groceries (Group I.) the "mass units" adopted are, approximately, the annual average consumption per head for household purposes of the various articles during the years 1927 to 1929. The "weights" allotted to articles of clothing and miscellaneous household requirements (Groups III. and IV.) are based largely on the results of the inquiries of the Royal Commission on the Basic Wage, which reported in 1920 and 1921. After exhaustive inquiries the Commission published a "regimen" for an average working family of five persons, and set out the constituent items in its "Indicator List". This list, so far as it related to the articles in question was followed substantially in the original compilation of the All Items ("C" series) index, and has been adjusted by subsequent investigations of the Bureau to accord with changes in popular usage. The "weights" allotted to the items have not been adjusted to take account of war-time shortages or rationing, and the index therefore measures war-time price changes in relation to a normal (or pre-war) apportionment of household expenditure. (See § 2 (5) and § 8 (3) hereof).

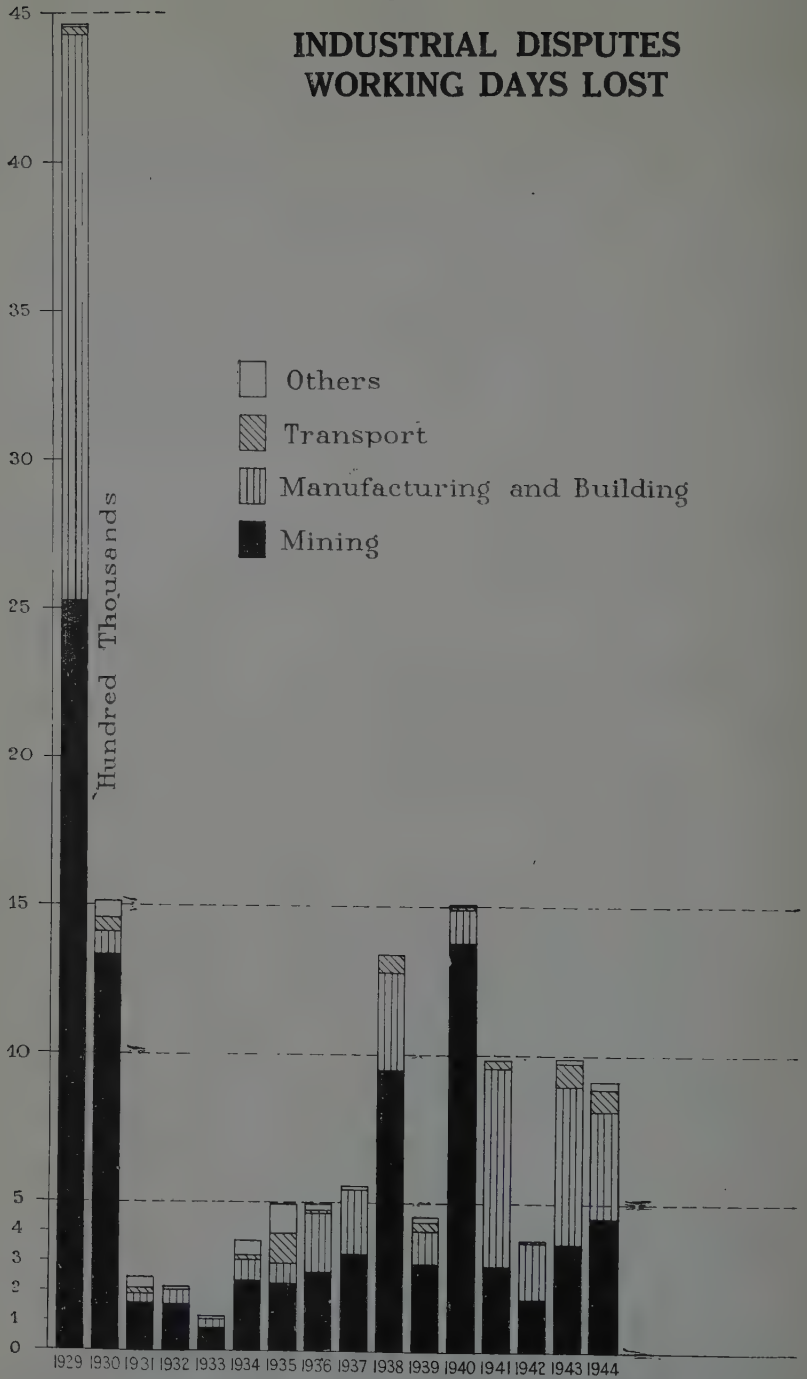
3. **Relative "Aggregate Expenditure" of Items and Groups.**—In the *base period* of the index (average of the years 1923 to 1927) the relative importance of each of the four main groups, expressed as a percentage of the weighted average "aggregate expenditure" in the Six Capital Cities (from which all relative index numbers are derived) was—Food and Groceries, 38.66 per cent.; House Rent, 21.26 per cent.; Clothing, 23.04 per cent., and Miscellaneous, 17.04 per cent., as shown in the first column of the following table. Although the "weights" of each item in the Regimen are kept virtually constant, the relative "aggregate expenditure" of the various items and groups will, of course, vary from time to time as relative prices change and, in

WHOLESALE AND RETAIL PRICES, NOMINAL AND EFFECTIVE OR REAL WAGE INDEX-NUMBERS.—AUSTRALIA, 1911 TO 1944.



EXPLANATION.—The index-numbers in the above graph are for the Six Capital Cities as a whole, with the exception of those for Wholesale Prices, which are for Melbourne. They are all calculated to the common base 1911 = 1,000, the scale for which appears on the left of the graph. They are shown *quarterly* from 1912 to 1939, and thereafter the annual average in the case of the Wholesale Prices (Melbourne). The "C" Series Retail Prices (food, groceries, rent of 4 and 5 rooms, clothing and miscellaneous household expenditure) are shown *quarterly* from 1925. For the period 1911-1914 the "C" Series are taken back from the true base (November, 1914 = 1,000) by means of the "A" Series Index (Food and Rent of All Houses). Nominal Wages are shown *quarterly* from 1914, and Real Wages *quarterly* from 1925. Real Wages are computed on the basis of the "C" Series.

INDUSTRIAL DISPUTES WORKING DAYS LOST



EXPLANATION.—The scale refers to working days lost in hundred thousands. Thus, taking the year 1929, and comparing the sections with the scale, it will be seen that about 2,528,000 working days were lost in Mining, 1,901,000 in Manufacturing and Building 30,000 in Transport, and about 3,000 in other industries. Total, 4,462,000 days.

addition, the distribution of relative expenditure as between the groups and sections is varied from time to time for "relative weighting" purposes on the basis of the changing relativities of population and households as disclosed by successive Censuses.

The percentage distribution for Melbourne in the *base period* was practically identical with that of the Six Capital Cities as a whole, and has continued to be representative of the relative movement of prices in the capital cities up to the present time. For this and other reasons, therefore, the percentage distribution of the Melbourne "aggregate expenditures" for successive December quarters has been published in previous issues of this publication, and the figures for the December quarter, 1944 are shown in the second column of the table for comparison with those of the *base period* of 1923-1927:—

Group.		Section.	Percentage of Aggregate Expenditure.					
			1923-27. (Base) Six Capital Cities.		Dec. Qtr., 1944 Melbourne.			
I. Food and Groceries		{ A Groceries B Dairy Produce .. C Meat	17.44 10.28 10.94	} 38.66	11.51 9.27 12.33	} 33.11		
II. Housing		D House Rent— (4 and 5 rooms) ..	21.26		21.26		19.77	19.77
III. Clothing		{ E Man F Woman G Boy, 10½ years .. H Girl, 7 years .. J Boy, 3½ years ..	8.69 9.12 2.89 1.36 0.98		} 23.04		10.66 13.17 2.06 1.59 0.79	} 28.27
IV. Miscellaneous		{ K Household Drapery L Household Utensils M Fuel and Light .. N Other Miscellaneous	1.09 0.49 4.92 10.54	} 17.04		1.91 0.64 4.36 11.94	} 18.85	
			100.00			100.00		

It should be noted, however, that percentage price variations are measured from the "aggregate expenditures" of the *base period* of the index, and the percentages shown in the foregoing table for the *base period* 1923-1927, therefore, and not the percentage "weights" of any other period, are the proportionate "weights" applicable to the various groups and sections in measuring such variations in the index as a whole calculated to this *base period*. For example, those shown for the December quarter, 1944 would only become of significance in the measurement of variations if the latter quarter were adopted as a *new base* for the index.

4. *Base Periods of the Indexes.*—The base period originally adopted by the Bureau for its retail price indexes was the year 1911. When the collection of the prices of clothing and miscellaneous items was undertaken for the purposes of the All Items ("C" series) index, the month of November, 1914, was adopted as the base period for this series. The

desirability of computing retail price indexes to a post-war base was considered by a Conference of Statisticians in 1929, and it was resolved that from 1st January, 1930, the five years 1923-27 should be adopted as the base period, and since this date the retail price indexes have been published on this base. The aggregate to which all index-numbers are related is the weighted aggregate cost of the regimen in the Six Capital Cities during the period taken as base.

§ 7. Tabular Statements of Retail Price Index-Numbers.

1. **General.**—The results of inquiries into price movements are available in the following publications :—

(i) *Monthly.*—A mimeographed statement is published each month giving index-numbers for Food and Groceries. The *Monthly Review of Business Statistics* contains annual, quarterly and monthly index-numbers to the latest available date.

(ii) *Quarterly.*—A mimeographed statement is issued about three weeks after the end of each quarter giving the "C" series index-numbers for that quarter and immediately preceding quarters in respect of each of the 30 cities and towns originally adopted and for certain other places, e.g., Canberra, for which the "C" series index is now compiled. The *Quarterly Summary of Australian Statistics* contains annual, quarterly and monthly index-numbers to the latest available date. This publication also contains the average prices of the items comprising the Food and Groceries regimen, for each month of the last available quarter, in the 30 towns covered by the investigation. Comparative average rents of four and five roomed houses in these towns are also shown therein.

(iii) *Annual.*—The *Labour Report* contains index-numbers over the past five years, and the monthly and quarterly results for the last available year. The average prices for the last year of the items of food and groceries, and average house rents, are also published in this report. The *Official Year Book* also contains information similar to, but in less detail than, that published in the *Labour Report*.

2. **All Items ("C" Series) Index.**—On page 386 is published a table of weighted averages for the six capital cities combined of "C" series retail price index-numbers, together with index-numbers for each of the four main groups of items in the "C" series index for each year 1914-44, and quarterly from 1939.

In the pages immediately following are published :—

- (i) the "C" series index-number for the last quarter of each year 1938-44 (page 395) and for the month of November, 1914-20 (page 396), for each capital city and for the six capital cities combined, showing separate indexes for each of the four main groups of items; and
- (ii) the "C" series index numbers for the years 1914, 1921, 1929 and 1938-44 (page 397) for each of the 30 towns with the weighted averages for each State, the six capital cities and 30 towns, together with index numbers for the same periods for three additional towns for which this index is tabulated.

ALL ITEMS ("C" SERIES) RETAIL PRICE INDEX-NUMBERS(a) : CAPITAL CITIES.

(Base of each Group : Weighted average of Six Capital Cities, 1923-27 = 1,000.)

Period.	Sydney.	Mel- bourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Six Capitals. (b)
GROUP I.—FOOD AND GROCERIES.							
Dec. Qtr. 1938 ..	917	907	835	866	898	894	899
" " 1939 ..	940	942	859	888	926	941	927
" " 1940 ..	974	961	920	903	949	972	956
" " 1941 ..	969	949	920	915	982	986	954
" " 1942 ..	1,060	1,069	977	1,027	1,048	1,082	1,051
" " 1943 ..	1,015	1,037	950	985	1,045	1,058	1,015
" " 1944 ..	1,022	1,046	959	988	1,049	1,039	1,022

GROUP II.—HOUSING (4 AND 5 ROOMS).(c)							
Dec. Qtr. 1938 ..	1,020	943	849	878	877	917	953
" " 1939 ..	1,040	960	855	891	882	930	969
" " 1940 ..	1,042	973	859	892	882	933	974
" " 1941 ..	1,044	975	860	893	884	933	976
" " 1942 ..	1,042	974	862	893	885	932	976
" " 1943 ..	1,042	974	862	893	885	931	975
" " 1944 ..	1,043	973	863	892	886	933	975

GROUPS I. AND II.—FOOD, GROCERIES AND HOUSING.							
Dec. Qtr. 1938 ..	955	919	839	869	888	901	918
" " 1939 ..	977	947	855	887	907	935	941
" " 1940 ..	998	964	894	897	921	954	961
" " 1941 ..	996	957	895	904	942	963	960
" " 1942 ..	1,051	1,030	930	973	982	1,021	1,019
" " 1943 ..	1,023	1,010	914	947	980	1,006	997
" " 1944 ..	1,027	1,015	919	948	983	995	1,002

GROUP III.—CLOTHING.							
Dec. Qtr. 1938 ..	834	819	829	861	826	852	831
" " 1939 ..	854	862	865	869	840	867	858
" " 1940 ..	1,046	1,042	1,027	1,041	1,010	1,038	1,040
" " 1941 ..	1,179	1,186	1,186	1,182	1,169	1,184	1,182
" " 1942 ..	1,382	1,423	1,355	1,357	1,355	1,384	1,388
" " 1943 ..	1,449	1,435	1,433	1,422	1,395	1,430	1,436
" " 1944 ..	1,441	1,464	1,430	1,416	1,412	1,424	1,442

GROUP IV.—MISCELLANEOUS.							
Dec. Qtr. 1938 ..	935	981	949	1,021	952	930	961
" " 1939 ..	943	983	960	1,027	957	945	967
" " 1940 ..	1,004	1,021	986	1,060	995	977	1,013
" " 1941 ..	1,072	1,083	1,043	1,156	1,058	1,030	1,080
" " 1942 ..	1,140	1,144	1,109	1,209	1,127	1,095	1,144
" " 1943 ..	1,179	1,157	1,140	1,212	1,140	1,109	1,168
" " 1944 ..	1,169	1,158	1,134	1,213	1,139	1,099	1,163

GROUPS I. TO IV.—ALL ITEMS OF HOUSEHOLD EXPENDITURE.							
Dec. Qtr. 1938 ..	922	906	855	893	884	893	905
" " 1939 ..	943	932	874	906	899	919	926
" " 1940 ..	1,008	989	938	957	953	976	986
" " 1941 ..	1,048	1,028	985	1,010	1,012	1,023	1,029
" " 1942 ..	1,138	1,136	1,055	1,100	1,090	1,113	1,122
" " 1943 ..	1,143	1,128	1,068	1,099	1,100	1,117	1,123
" " 1944 ..	1,142	1,138	1,069	1,098	1,104	1,106	1,126

(a) See footnote (a) on page 389.
page 389.

(b) Weighted average.

(c) See footnote (b) on

ALL ITEMS ("C" SERIES) RETAIL PRICE INDEX-NUMBERS(a) : CAPITAL CITIES,
1914 TO 1920.

(Base of each Group : Weighted Average of Six Capital Cities, 1923-27 = 1,000.)

Period.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Six Capitals. (b)
FOOD AND GROCERIES.							
Nov. 1914 ..	638	616	614	683	746	687	641
" 1915 ..	844	835	860	858	819	858	842
" 1916 ..	833	791	748	835	854	807	812
" 1917 ..	877	798	825	805	828	949	836
" 1918 ..	877	843	882	862	816	918	861
" 1919 ..	1,073	975	1,069	1,012	987	1,041	1,026
" 1920 ..	1,225	1,220	1,117	1,225	1,113	1,293	1,209

HOUSING (4 AND 5 ROOMS). (c)

Nov. 1914 ..	738	608	463	611	586	525	649
" 1915 ..	780	611	472	574	581	571	659
" 1916 ..	791	625	467	573	592	574	665
" 1917 ..	797	657	492	606	602	586	685
" 1918 ..	832	699	526	656	619	614	722
" 1919 ..	866	744	604	707	650	746	768
" 1920 ..	980	807	634	783	718	904	851

FOOD, GROCERIES AND HOUSING.

Nov. 1914 ..	680	613	560	658	689	630	644
" 1915 ..	825	756	722	758	734	756	777
" 1916 ..	818	732	648	742	761	724	760
" 1917 ..	848	748	707	734	748	820	782
" 1918 ..	861	792	756	789	746	810	812
" 1919 ..	1,000	893	904	904	867	936	934
" 1920 ..	1,138	1,074	945	1,068	973	1,155	1,082

CLOTHING.

Nov. 1914 ..	755	780	657	756	698	825	754
" 1915 ..	805	797	690	821	760	833	792
" 1916 ..	903	870	779	919	849	940	881
" 1917 ..	1,009	976	899	1,049	980	1,041	992
" 1918 ..	1,102	1,103	1,025	1,066	1,135	1,200	1,097
" 1919 ..	1,237	1,213	1,192	1,303	1,277	1,344	1,238
" 1920 ..	1,323	1,422	1,274	1,384	1,359	1,430	1,365

MISCELLANEOUS.

Nov. 1914 ..	766	728	728	770	780	699	749
" 1915 ..	798	770	756	803	822	770	786
" 1916 ..	808	784	766	832	869	780	802
" 1917 ..	889	879	836	883	926	865	882
" 1918 ..	988	950	931	988	1,035	945	972
" 1919 ..	1,059	1,016	968	1,035	1,120	1,006	1,036
" 1920 ..	1,209	1,181	1,139	1,200	1,262	1,124	1,194

TOTAL HOUSEHOLD EXPENDITURE.

Nov. 1914 ..	712	671	611	699	707	687	687
" 1915 ..	816	768	721	780	755	776	782
" 1916 ..	836	773	698	798	800	783	795
" 1917 ..	892	823	773	832	832	879	847
" 1918 ..	938	890	848	887	885	923	905
" 1919 ..	1,065	988	981	1,018	1,005	1,042	1,022
" 1920 ..	1,193	1,172	1,054	1,164	1,111	1,213	1,166

(a) See footnote (a) on page 389.
figures for years 1921 to 1944.(b) Weighted average. See page 386 for corresponding
(c) See footnote (b) on page 389.

ALL ITEMS ("C" SERIES) RETAIL PRICE INDEX-NUMBERS: THIRTY TOWNS.

(Base: Weighted Average of Six Capital Cities, 1923-27 = 1,000.)

State and Town.	Nov. 1914.	Year 1921.	Year 1929.	Year 1938.	Year 1939.	Year 1940.	Year 1941.	Year 1942.	Year 1943.	Year 1944.
NEW SOUTH WALES—										
Sydney	712	1,046	1,073	913	936	974	1,028	1,107	1,151	1,144
Newcastle	1,041	1,028	877	901	945	997	1,069	1,109	1,094
Broken Hill	975	1,018	940	955	981	1,049	1,132	1,172	1,179
Goulburn	1,033	1,108	893	916	949	1,005	1,087	1,125	1,118
Bathurst	947	979	860	883	923	974	1,050	1,091	1,088
FIVE TOWNS (a)	1,042	1,067	911	933	972	1,026	1,104	1,147	1,140
VICTORIA—										
Melbourne	671	1,003	1,017	896	924	964	1,008	1,100	1,139	1,135
Ballarat	992	957	850	874	906	950	1,037	1,084	1,083
Bendigo	1,002	969	854	875	920	963	1,054	1,096	1,101
Geelong	1,019	980	884	911	941	984	1,065	1,110	1,112
Warrnambool	1,034	960	892	918	954	998	1,078	1,126	1,129
FIVE TOWNS (a)	1,003	1,011	893	920	960	1,004	1,095	1,135	1,131
QUEENSLAND—										
Brisbane	611	923	923	852	870	908	963	1,033	1,072	1,071
Toowoomba	949	916	843	858	898	951	1,033	1,080	1,085
Rockhampton	972	904	853	867	905	959	1,032	1,073	1,074
Townsville	1,025b	939b	902	918	950	1,004	1,075	1,114	1,117
Bundaberg	994c	931c	831	847	879	938	1,015	1,057	1,057
FIVE TOWNS (a)	941	922	854	871	909	964	1,035	1,075	1,075
SOUTH AUSTRALIA—										
Adelaide	699	989	1,037	888	906	936	988	1,075	1,102	1,098
Kadina, etc.	998	943	786	810	833	882	962	998	995
Port Pirie	1,025	980	868	896	919	976	1,057	1,087	1,081
Mount Gambier	1,029	963	849	872	894	946	1,024	1,061	1,064
Peterborough	948	1,043	868	897	924	974	1,053	1,087	1,087
FIVE TOWNS (a)	992	1,030	883	902	931	983	1,069	1,097	1,093
WESTERN AUSTRALIA—										
Perth, etc.	707	1,008	1,026	882	901	932	993	1,061	1,104	1,105
Kalgoorlie, etc.	1,048	1,032	1,048	1,066	1,099	1,165	1,175	1,192	1,199
Northam	1,030	1,022	900	915	947	1,017	1,079	1,111	1,113
Bunbury	1,045	978	914	936	962	1,018	1,065	1,102	1,110
Geraldton	1,056	1,051	957	965	990	1,055	1,114	1,165	1,176
FIVE TOWNS (a)	1,020	1,026	897	915	946	1,008	1,070	1,112	1,113
TASMANIA—										
Hobart	687	1,070	1,000	887	908	945	1,001	1,078	1,117	1,105
Launceston	1,067	967	872	888	926	974	1,040	1,078	1,067
Burnie	1,003	966	865	879	917	971	1,035	1,088	1,065
Devonport	904	948	848	861	896	951	1,012	1,058	1,040
Queenstown	1,031	972	875	903	936	987	1,045	1,096	1,102
FIVE TOWNS (a)	1,057	986	879	898	936	989	1,060	1,101	1,089
THIRTY TOWNS (a)	1,013	1,026	894	917	954	1,006	1,087	1,127	1,122
SIX CAPITALS (a)	687	1,013	1,033	897	920	957	1,008	1,091	1,131	1,126
Canberra (A.C.T.) (d)	966	956	988	1,040	1,121	1,168	1,153
Warwick (Q.) (d)	994	931	800	834	867	926	1,007	1,055	1,061
Port Augusta (S.A.) (d)	1,035	1,061	863	883	915	980	1,052	1,076	1,076

 (a) Weighted average.
in weighted averages above.

(b) Charters Towers.

(c) Warwick.

(d) Not included

3. "B" Series Retail Price Index-Numbers: Food, Groceries and Rent.—This index measures the prices of food and groceries and the rent of 4 and 5-roomed houses. It was first compiled for the year 1925, and retrospectively for several earlier years. It was designed to replace the "A" series index (food, groceries and rent of all houses), which was the original index compiled in 1912. The first of the two following tables is split up into the various sections of the regimen, and covers only the Six Capital Cities,

while the second represents the whole regimen and covers the 30 Towns included in the tabulation of the "B" Series Index, with the weighted averages for each State, the 13 Capital Cities and the 30 Towns.

RETAIL PRICE INDEX-NUMBERS(a) : CAPITAL CITIES—"B" SERIES.

(Base of each Section : Weighted Average of Six Capital Cities, 1923-27 = 1,000.)

TOWN.	1914.	1921.	1928.	1939.	1940.	1941.	1942.	1943.	1944.
SECTION A.—GROCERIES.									
Sydney	627	1,115	887	994	969	989	1,082	1,016	965
Melbourne	562	1,070	835	957	928	924	1,034	967	924
Brisbane	607	1,105	871	944	943	957	1,066	989	934
Adelaide	598	1,076	831	939	914	932	1,073	979	939
Perth	628	1,103	897	966	941	983	1,048	1,007	963
Hobart	604	1,087	874	947	930	950	1,048	971	923
Six Capitals (b) ..	599	1,093	864	969	945	958	1,061	992	946
SECTION B.—DAIRY PRODUCE.									
Sydney	656	1,080	850	851	864	863	924	947	960
Melbourne	635	1,087	861	885	880	893	943	971	970
Brisbane	588	983	791	793	800	808	871	902	932
Adelaide	705	1,018	802	800	800	798	861	888	895
Perth	735	1,152	864	870	873	878	922	976	982
Hobart	695	1,091	802	844	855	873	932	967	968
Six Capitals (b) ..	654	1,072	843	853	857	862	919	947	956
SECTION C.—MEAT.									
Sydney	668	960	969	935	1,008	1,015	1,089	1,160	1,158
Melbourne	663	1,030	960	968	1,028	1,007	1,142	1,242	1,279
Brisbane	610	897	834	822	898	943	942	1,018	1,026
Adelaide	784	1,095	950	929	972	969	1,074	1,138	1,151
Perth	881	1,103	926	958	1,026	1,070	1,102	1,199	1,239
Hobart	780	1,244	957	961	1,041	1,082	1,149	1,265	1,233
Six Capitals (b) ..	691	1,010	948	936	1,002	1,006	1,092	1,175	1,190
SECTIONS A, B AND C COMBINED.—FOOD AND GROCERIES.									
Sydney	646	1,062	904	936	952	962	1,040	1,042	1,025
Melbourne	610	1,063	884	942	947	943	1,042	1,055	1,049
Brisbane	603	1,014	838	864	889	911	972	975	965
Adelaide	679	1,066	861	897	900	905	1,012	1,003	993
Perth	728	1,166	899	938	949	981	1,029	1,059	1,056
Hobart	678	1,133	880	923	944	970	1,047	1,062	1,035
Six Capitals (b) ..	640	1,064	886	927	939	947	1,031	1,037	1,026
SECTION D.—HOUSING (4 AND 5 ROOMS).(c)									
Sydney	760	989	1,004	1,035	1,042	1,043	1,043	1,042	1,043
Melbourne	628	820	935	955	969	975	975	974	974
Brisbane	466	630	841	854	857	860	862	862	863
Adelaide	653	800	868	888	892	893	893	893	892
Perth	589	739	872	881	882	883	885	885	886
Hobart	518	881	913	925	933	933	933	931	932
Six Capitals (b) ..	662	862	942	965	973	976	976	975	976
ALL SECTIONS COMBINED.—FOOD, GROCERIES, AND HOUSING ("B" SERIES)									
Sydney	687	1,036	941	972	985	992	1,039	1,040	1,030
Melbourne	616	977	902	945	953	953	1,014	1,021	1,017
Brisbane	554	877	838	858	875	889	927	929	923
Adelaide	671	975	862	891	895	899	963	958	951
Perth	679	982	887	914	921	941	971	989	987
Hobart	621	1,044	891	922	938	953	1,000	1,009	992
Six Capitals (b) ..	648	992	906	939	950	956	1,007	1,011	1,004

(a) See footnote (a) on page 389.

(b) Weighted average.

(c) See footnote (b) on page 389.

RETAIL PRICE INDEX-NUMBERS: THIRTY TOWNS—"B" SERIES.

FOOD, GROCERIES AND RENT.

(Base: Weighted Average of Six Capital Cities, 1923-27 = 1,000.)

State and Town.	Nov. 1914.	Nov. 1921.	1929.	1938.	1939.	1940.	1941.	1942.	1943.	1944.
NEW SOUTH WALES—										
Sydney	680	977	1,115	941	972	985	992	1,039	1,040	1,030
Newcastle	944	1,068	898	934	950	959	1,005	1,000	987
Broken Hill	825	1,078	948	970	953	991	1,052	1,044	1,055
Goulburn	926	1,146	908	942	950	957	1,009	1,007	999
Bathurst	815	987	867	900	908	910	957	953	951
FIVE TOWNS(a)	965	1,110	937	969	980	988	1,036	1,036	1,026
VICTORIA—										
Melbourne	613	895	1,036	902	945	953	953	1,014	1,021	1,017
Ballarat	769	914	808	849	843	841	894	908	907
Bendigo	780	962	817	851	864	868	920	923	923
Geelong	844	985	872	917	915	912	956	962	958
Warrnambool	855	940	808	940	944	941	984	993	995
FIVE TOWNS(a)	876	1,026	895	938	946	946	1,005	1,012	1,009
QUEENSLAND										
Brisbane	560	840	912	838	858	875	880	927	929	923
Toowoomba	771	855	806	830	849	857	913	927	945
Rockhampton	779	877	825	843	854	863	901	904	908
Townsville	820b	975b	900	920	925	933	974	970	975
Bundaberg	794c	867c	781	804	817	835	878	888	886
FIVE TOWNS(a)	824	906	837	858	873	886	926	928	926
SOUTH AUSTRALIA—										
Adelaide	658	898	1,030	862	891	895	899	963	958	951
Kadina, etc.	811	891	702	743	739	738	789	784	776
Port Pirie	839	963	838	882	877	889	943	932	923
Mount Gambier	770	866	801	838	828	832	879	877	884
Peterborough	844	1,042	836	890	895	893	936	926	922
FIVE TOWNS(a)	885	1,020	855	885	888	892	955	950	944
WESTERN AUSTRALIA—										
Perth, etc.	689	916	1,038	887	914	921	941	971	989	987
Kalgoorlie, etc.	928	1,010	1,152	1,178	1,184	1,211	1,160	1,122	1,121
Northam	898	1,072	911	936	946	980	1,005	1,001	999
Bunbury	907	996	945	979	979	996	1,011	1,010	1,018
Geraldton	942	1,090	974	990	995	1,024	1,048	1,069	1,079
FIVE TOWNS(a)	918	1,036	909	936	943	964	988	1,001	1,000
TASMANIA—										
Hobart	630	971	992	891	922	938	953	1,000	1,009	992
Launceston	858	937	867	887	901	913	948	953	936
Burnie	819	972	880	898	914	937	973	996	958
Devonport	696	930	846	865	882	898	928	942	920
Queenstown	871	920	900	933	942	947	970	1,005	1,004
FIVE TOWNS(a)	911	970	882	908	923	937	978	988	970
THIRTY TOWNS(a)	907	1,044	902	935	945	952	1,001	1,005	998
SIX CAPITALS(a)	644	924	1,054	906	939	950	1,007	1,011	1,004
Canberra (A.C.T.)(d)	1,043	1,026	1,028	1,028	1,078	1,073	1,058
Warwick (Q.)(d)	794	867	732	783	799	817	856	872	886
Port Augusta (S.A.)(d)	861	1,047	831	864	878	896	932	914	914

(a) Weighted Average.
averages above.

(b) Charters Towers.

(c) Warwick.

(d) Not included in weighted

§ 8. Changes in the Regimen of Indexes.

1. General.—Since the original compilation of retail prices by the Bureau, the regimens of the several groups and section have undergone some modifications. These are fully described in the annual *Labour Report* No. 33 for 1943, pp. 29-32. These changes are made from time to time with a view to improving the index-numbers as measures of price variations. They comprise chiefly the elimination or replacement of articles no longer in demand, or which experience had shown to be unsuitable media for the measurement of price variations; the alteration of units of quantity in certain cases to conform with those in most general use; the adjustment of the mass-unit allotted

to certain articles to bring them into accord with present-day consumption habits: the re-adjustment of the population weights applicable to the several groups and sections of the regimen in accordance with general Census results, and improved methods of collecting and weighting average house rentals.

2. **Method of Effecting Changes.**—Changes of the nature mentioned are commonly made in price indexes without seriously impairing their continuity. In accordance with established principles of procedure in effecting such changes (see *Labour Report* No. 9, Appendix I, Part II., paragraphs 14 and 18), the general level of the index is taken as determined by the old regimen for the quarter in which the change is made, and the new regimen is used to measure variations in the price-level after that date. The linking up of the index-numbers on the old and the new basis is effected by the usual method of equating the respective weighted aggregate costs of the old and the new regimens in the six capital cities.

The method of effecting this is shortly as follows:—Up to the June quarter, 1942, all such changes were made by equating the new aggregate of the section embodying the changes to the former aggregate. This course was adopted when items were added to or omitted from the regimen, and when a change was made in the standard of any item. From the September quarter, 1942, however, all changes of standard were effected by an appropriate adjustment of the “mass unit” or “weight” so as to preserve the percentage weight which the item carried in the aggregate from time to time. Wherever possible, the “weight” of any item dropped from the regimen was transferred to an article of a similar nature which would serve as a more appropriate medium for the measurement of the variations of the article dropped than the remaining items of the section. The “mass units” of the remaining items under the former procedure were in effect proportionately increased to carry the aggregate of the item dropped, or reduced to admit the new item added. See also par. 3 on pages 390 and 393.

While this involves no break of continuity in the index-numbers for the six capital cities as a whole, slight alterations of the relative positions of individual towns are inevitable on account of the alteration of former standards. The effect, however, is more noticeable in the group index-numbers than in those covering a combination of groups, wherein the losses and gains tend to balance out.

3. **The Regimen under War Conditions.**—Although the effects of the war produced some variations from normal consumption in 1940 and 1941, it was not until 1942 (as explained in Section 2 (5) of this Chapter) that fundamental changes began to occur. As there explained, the years 1942, 1943 and 1944 produced temporary changes of a far-reaching character which, if permanent and stable, must have necessitated fundamental re-adjustments in the regimen and mass-units of the index. But the resultant changes in the index would have been so extensive as virtually to create a new index which would not have been continuously comparable with the “C” series index either as compiled pre-war nor as it is likely to be compiled in post-war years. Consideration of the matter led to the conclusions—

- (i) that it was desirable to continue the “C” series index substantially on its pre-war regimen in order to ensure continuity of comparison of price movements on a clearly defined basis;
- (ii) that it was impossible to reconstruct the “C” series index to take account of recurrent temporary departures from normal consumption.

§ 9. Retail Price Index-Numbers and Wage Variations.

Two distinct procedures are adopted by the Commonwealth Court of Conciliation and Arbitration in fixing and varying basic or living wages as follows:—

- (i) The Court periodically *fixes* the amount of wage in the light of evidence submitted by parties appearing before it. Such evidence usually covers a wide range of facts as to economic conditions.
- (ii) Having determined the amount of basic wage the Court further determines whether or not it shall be subject to automatic adjustment for changes in price level and, if so, by what method such *variation* shall be made. This again is decided in the light of evidence and of representations by the parties concerned.

The All Items ("C" series) retail price index is used by the Court to derive the "Court" series of retail price index-numbers upon which the basic or "needs" portion of the wages prescribed in awards is *varied* automatically for changes in price levels quarterly, half-yearly or yearly. These are commonly referred to as "cost of living adjustments" although in fact they relate only to that part of the change in cost of living which is due to variations in prices. The Court itself determines from time to time at public sittings the amount of the basic wage, having regard to evidence submitted in relation to other aspects of "cost of living" and other relevant considerations. In fixing the amount of the basic wage the Court does not have regard to either the regimen used in compiling the retail price index or the cost of such regimen. The regimen of the index would not be suited to such a purpose.

The considerations upon which the basic wage is fixed are set out in successive judgments of the Court and briefly summarized in Chapter III. (Section 3) of the *Labour Report*. On this matter, reference should be made to the Basic Wage Judgments of the Court, particularly those of 1934, 1937 and 1941, and to the general statement of principles set out in the judgment on the "Munition Workers' Case" of 1943. Certain State industrial tribunals use the index-numbers directly for automatic or quasi-automatic adjustment of the rates of wages determined by them as tribunals, while some State tribunals have regard to the index-numbers and other factors in considering what "cost of living" variations they should make in rates of wages.

The use of index-numbers by industrial authorities for purposes of adjusting rates of wages for changes in price level is a practice of long standing, dating in the case of the Commonwealth Arbitration Court, for example, back to the year 1913. The tribunals form their own judgment as to relevance of the index-numbers to their purposes, and periodically hear the representatives of employers and employees on the issues involved, including questions as to whether the index is satisfactory for the purposes to which it is applied by the tribunal. In such proceedings the Statistician or his officers are called at times as witnesses on questions of fact and technical matters relating to the index-numbers.

The automatic adjustments in wages prescribed in awards of the Court on the basis of retail price index-numbers are sometimes referred to as "cost of living" adjustments and the index is popularly referred to as a "cost of living index". This at times creates misconceptions as to the nature of the retail price index since the term "cost of living" connotes not only change in cost of living due to changes in prices, but also changes in cost of living due to changes in standard of living. Beyond that, use of the term "cost of living" index sometimes creates the erroneous impression that the retail price index purports to embrace all that should be included in a desirable standard of living. As pointed out in the opening sections of this chapter, the "C" series index is a retail price index of specific meaning.

B.—WHOLESALE PRICES AND PRICE INDEXES.

§ 1. Melbourne Wholesale Price Index.

1. *General*.—The data on which this section is based relate almost entirely to wholesale prices in Melbourne. An index of Sydney wholesale prices is compiled by the Government Statistician of New South Wales, and published in the *Year Book* and the *Monthly Summary of Business Statistics* of that State.

The index of Melbourne wholesale prices was first computed in 1912, and has been continued on the same lines since that year. The items included comprise chiefly basic materials which in the form of raw material or food, or as a source of power enter into production for home consumption. The purpose of the index, therefore, is to measure the changes in the prices of these particular materials rather than the changes in prices generally. As Australia does not, to any extent, manufacture from imported raw materials commodities for export, the local consumption appears to give the most appropriate weighting.

2. *Index-Numbers.*—Index-Numbers for each group of commodities and for all groups combined are shown in the following table:—

INDEX-NUMBERS : MELBOURNE WHOLESALE PRICES, 1861 TO 1944.

(*Base of each Group : Year 1911 = 1,000.*)

Year.	I. Metals and Coal.	II. Wool, Cotton, Leather, etc.	III. Agri- cultural Produce, etc.	IV. Dairy Produce.	V. Gro- ceries.	VI. Meat.	VII. Building Materials.	VIII. Chem- icals.	ALL Groups.
1861	1,438	1,381	1,583	1,008	1,963	..	1,070	2,030	1,538
1871	1,096	1,257	1,236	864	1,586	..	1,044	1,409	1,229
1881	1,178	1,115	1,012	935	1,421	..	1,091	1,587	1,121
1891	895	847	1,024	995	1,032	888	780	1,194	945
1901	1,061	774	928	1,029	1,048	1,345	841	977	974
1902	1,007	756	1,192	1,215	945	1,447	837	881	1,051
1903	923	834	1,209	1,059	936	1,443	875	921	1,049
1904	821	885	754	876	916	1,427	845	875	890
1905	772	850	894	980	942	1,209	801	859	910
1906	882	978	916	972	923	1,110	896	864	948
1907	1,037	1,017	973	1,020	948	1,294	968	961	1,021
1908	1,033	901	1,312	1,198	968	1,335	935	891	1,115
1909	1,014	907	1,000	1,119	978	1,088	911	815	993
1910	1,004	1,052	969	1,100	999	1,008	996	898	1,003
1911	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
1912	1,021	991	1,370	1,206	1,052	1,357	1,057	978	1,170
1913	1,046	1,070	1,097	1,054	1,024	1,252	1,128	995	1,088
1914	1,099	1,032	1,207	1,137	1,021	1,507	1,081	1,253	1,149
1915	1,284	1,017	2,162	1,530	1,133	2,435	1,275	1,528	1,604
1916	1,695	1,423	1,208	1,485	1,322	2,515	1,491	1,760	1,504
1917	2,129	2,008	1,157	1,423	1,343	2,403	1,884	2,171	1,662
1918	2,416	2,360	1,444	1,454	1,422	2,385	2,686	3,225	1,934
1919	2,125	2,363	1,985	1,651	1,516	2,348	2,851	2,898	2,055
1920	2,298	2,624	2,439	2,209	1,918	3,279	3,226	2,825	2,480
1921	2,173	1,362	1,767	2,000	1,976	2,158	2,733	2,303	1,903
1922	1,942	1,681	1,628	1,648	1,869	1,787	2,005	1,965	1,758
1923	1,826	2,148	1,778	1,837	1,746	2,579	2,025	1,933	1,944
1924	1,835	2,418	1,647	1,655	1,721	2,223	1,815	1,806	1,885
1925	1,852	1,967	1,797	1,636	1,723	2,212	1,711	1,790	1,844
1926	1,938	1,582	2,001	1,784	1,731	1,931	1,665	1,816	1,832
1927	1,962	1,650	1,826	1,823	1,724	2,111	1,624	1,866	1,817
1928	1,912	1,781	1,726	1,751	1,707	2,015	1,744	1,923	1,792
1929	1,912	1,556	1,792	1,853	1,690	2,246	1,754	1,942	1,803
1930	1,866	1,127	1,484	1,627	1,666	2,025	1,875	1,982	1,596
1931	1,826	1,039	1,121	1,399	1,794	1,508	2,025	2,166	1,428
1932	1,736	1,000	1,230	1,303	1,767	1,348	2,043	2,127	1,411
1933	1,713	1,118	1,175	1,195	1,714	1,487	2,061	2,106	1,409
1934	1,660	1,261	1,288	1,274	1,735	1,540	2,015	2,018	1,471
1935	1,602	1,217	1,344	1,325	1,729	1,508	1,964	1,996	1,469
1936	1,566	1,331	1,480	1,351	1,731	1,684	1,969	1,997	1,543
1937	1,772	1,406	1,604	1,451	1,750	1,678	2,430	2,006	1,656
1938	1,746	1,051	1,789	1,549	1,747	1,871	2,238	2,059	1,662
1939	1,758	1,101	1,820	1,557	1,752	1,710	2,220	2,075	1,665
1940	1,854	1,362	1,568	1,567	1,784	1,882	2,890	2,298	1,713
1941	1,960	1,402	1,721	1,554	1,884	1,776	3,138	2,527	1,796
1942	2,146	1,507	1,900	1,665	1,938	2,312	3,409	2,437	1,977
1943	2,272	1,945	1,964	1,716	1,939	2,366	3,764	2,442	2,117
1944	2,278	1,967	2,052	1,721	1,949	2,470	3,768	2,442	2,159

NOTE.—The figures given in this table are comparable in the vertical columns but are not directly comparable horizontally.

§ 2. Basic Materials and Foodstuffs.

1. *General.*—As mentioned above, the Melbourne wholesale price index was first computed in 1912. Neither the component items nor the weighting have been varied. Consequently the index is a measure of changes in wholesale price levels based on usages which have altered substantially since the period on which the weighting was determined.

As such it is useful as an indication of long-term trends over the past eighty-four years which it covers, on the assumption that the relative importance of component items remained constant. But it no longer serves as a measure of price variations from month to month or from year to year of commodities weighted in accordance with present day consumption. Reference to a description of the index published in the annual *Labour Report* will indicate that animal fodders preponderate in the "Agricultural Produce" group, while "Building Materials" include little besides imported timber. In other groups, some principal items have increased in consumption while others have decreased. It was resolved, therefore, at the Conference of Statisticians at Brisbane in 1930 that the time had come to revise and extend the items included in order to bring the index into line with changed conditions. An investigation to that end was commenced, and in the course of the past few years, many new price-series have been collected on a monthly basis back to January, 1928. Some of these have been incorporated in a new index of the prices of basic materials and foodstuffs, index-numbers of which are regularly published in the *Monthly Review of Business Statistics* and other publications of the Bureau. The price quotations have in the main been obtained directly from manufacturers and merchants and, with a few important exceptions, from Melbourne sources. Apart from home-produced building materials, coal and one or two minor commodities, however, the price movements may be taken as representative of fluctuations in wholesale prices of basic materials in most Australian markets. The weighting system adopted is based on average annual consumption during the years 1928-29 to 1934-35 inclusive. The original index is being continued for the present on the old lines, as set out in § 1 on page 401.

2. Index-numbers.—Index-numbers for each group of commodities and for all groups combined for this new index of wholesale prices of basic materials and foodstuffs are given in the following table.

INDEX-NUMBERS : BASIC MATERIALS AND FOODSTUFFS, 1928-29 TO 1944-45.

(Base of each Group : Average 3 years ended June, 1939 = 1,000.)

Period.	Metals and Coal.	Oils, Fats and Waxes.	Textiles.	Chemicals.	Rubber and Hides.	Building and Materials.	Foodstuffs and Tobacco.	Goods principally Imported.	Goods principally Home Produced.	All Groups.
1928-29	1,269	1,064	1,288	1,214	1,148	948	1,070	911	1,183	1,103
1929-30	1,259	1,115	991	1,157	866	940	1,099	940	1,179	1,108
1930-31	1,164	1,173	797	1,172	729	959	909	1,001	985	991
1931-32	1,081	1,134	765	1,195	738	951	857	996	922	946
1932-33	1,044	1,087	755	1,185	695	948	797	971	866	899
1933-34	1,025	845	1,020	1,113	801	939	843	890	893	895
1934-35	972	896	784	1,020	774	930	873	920	886	898
1935-36	920	952	997	991	879	930	917	945	918	926
1936-37	962	984	1,185	988	1,106	989	974	991	980	984
1937-38	1,013	1,012	1,000	1,001	969	1,041	997	1,018	1,000	1,005
1938-39	1,025	1,004	815	1,011	925	970	1,029	991	1,020	1,011
1939-40	1,051	1,152	1,038	1,068	1,163	1,084	1,012	1,106	1,025	1,047
1940-41	1,074	1,374	1,105	1,236	1,256	1,284	1,069	1,325	1,060	1,140
1941-42	1,173	1,509	1,184	1,372	1,350	1,352	1,169	1,525	1,123	1,242
1942-43	1,288	1,667	1,471	1,422	1,379	1,628	1,279	1,760	1,212	1,373
1943-44	1,310	1,695	1,501	1,432	1,398	1,743	1,287	1,824	1,217	1,396
1944-45	1,307	1,676	1,518	1,428	1,398	1,747	1,308	1,819	1,232	1,405
1941-42—										
July	1,123	1,412	1,131	1,241	1,300	1,310	1,099	1,416	1,070	1,172
August	1,127	1,437	1,145	1,265	1,299	1,310	1,130	1,425	1,097	1,195
September	1,165	1,461	1,157	1,363	1,299	1,310	1,144	1,472	1,108	1,215
October	1,165	1,465	1,172	1,363	1,302	1,317	1,144	1,491	1,102	1,217
November	1,165	1,491	1,177	1,391	1,339	1,326	1,146	1,527	1,097	1,225
December	1,173	1,489	1,171	1,391	1,364	1,326	1,125	1,516	1,088	1,215
January	1,173	1,522	1,166	1,406	1,420	1,326	1,130	1,511	1,102	1,223
February	1,175	1,530	1,185	1,406	1,432	1,326	1,154	1,507	1,124	1,237
March	1,175	1,576	1,197	1,408	1,365	1,326	1,160	1,523	1,130	1,246
April	1,206	1,574	1,221	1,408	1,364	1,326	1,191	1,540	1,154	1,260
May	1,208	1,574	1,242	1,410	1,361	1,516	1,270	1,680	1,181	1,327
June	1,213	1,574	1,238	1,410	1,361	1,514	1,326	1,694	1,219	1,358

INDEX-NUMBERS : BASIC MATERIALS AND FOODSTUFFS, 1928-29 TO
1944-45—continued.

Period.	Metals and Coal.	Oils, Fats and Waxes.	Tex- tiles.	Chem- icals.	Rubber and Hides.	Build- ing Ma- terials.	Food- stuffs and To- bacco.	Goods princi- pally Im- ported.	Goods princi- pally Home Pro- duced.	All Groups.
1942-43—										
July ..	1,213	1,590	1,363	1,410	1,361	1,514	1,311	1,653	1,232	1,356
August ..	1,234	1,644	1,359	1,410	1,361	1,516	1,318	1,661	1,247	1,369
September ..	1,237	1,644	1,381	1,410	1,361	1,516	1,334	1,724	1,237	1,379
October ..	1,302	1,649	1,386	1,410	1,361	1,516	1,292	1,721	1,219	1,367
November ..	1,308	1,651	1,391	1,425	1,361	1,529	1,281	1,750	1,205	1,365
December ..	1,308	1,684	1,484	1,425	1,358	1,691	1,255	1,801	1,193	1,371
January ..	1,308	1,686	1,544	1,425	1,398	1,691	1,210	1,790	1,166	1,350
February ..	1,308	1,688	1,535	1,429	1,398	1,701	1,234	1,789	1,185	1,363
March ..	1,308	1,693	1,544	1,429	1,398	1,701	1,265	1,802	1,206	1,382
April ..	1,310	1,693	1,541	1,430	1,398	1,709	1,274	1,807	1,211	1,386
May ..	1,310	1,693	1,573	1,430	1,398	1,709	1,275	1,801	1,216	1,388
June ..	1,310	1,693	1,574	1,430	1,398	1,741	1,298	1,824	1,228	1,404
1943-44—										
July ..	1,310	1,694	1,569	1,433	1,398	1,741	1,305	1,824	1,233	1,407
August ..	1,310	1,694	1,541	1,433	1,398	1,741	1,291	1,823	1,222	1,398
September ..	1,310	1,694	1,502	1,433	1,398	1,741	1,297	1,828	1,224	1,402
October ..	1,310	1,694	1,507	1,433	1,398	1,741	1,286	1,826	1,216	1,396
November ..	1,310	1,694	1,436	1,433	1,398	1,741	1,279	1,829	1,206	1,389
December ..	1,310	1,694	1,499	1,433	1,398	1,743	1,275	1,821	1,209	1,389
January ..	1,310	1,696	1,490	1,433	1,398	1,743	1,279	1,828	1,210	1,392
February ..	1,310	1,696	1,490	1,433	1,398	1,743	1,269	1,815	1,208	1,386
March ..	1,310	1,696	1,490	1,430	1,398	1,746	1,271	1,818	1,208	1,387
April ..	1,310	1,696	1,490	1,430	1,398	1,746	1,289	1,832	1,215	1,397
May ..	1,310	1,696	1,490	1,430	1,398	1,746	1,291	1,818	1,223	1,398
June ..	1,308	1,696	1,507	1,430	1,398	1,746	1,307	1,820	1,235	1,407
1944-45—										
July ..	1,308	1,696	1,512	1,430	1,398	1,747	1,312	1,819	1,239	1,410
August ..	1,308	1,696	1,542	1,429	1,398	1,747	1,306	1,817	1,237	1,408
September ..	1,308	1,696	1,525	1,430	1,398	1,747	1,291	1,814	1,225	1,399
October ..	1,308	1,696	1,523	1,430	1,398	1,747	1,288	1,821	1,221	1,397
November ..	1,310	1,696	1,515	1,430	1,398	1,747	1,289	1,831	1,217	1,398
December ..	1,306	1,696	1,515	1,430	1,398	1,747	1,290	1,834	1,216	1,398
January ..	1,306	1,678	1,516	1,430	1,398	1,746	1,291	1,822	1,217	1,396
February ..	1,306	1,678	1,516	1,430	1,398	1,748	1,304	1,830	1,223	1,404
March ..	1,306	1,678	1,511	1,430	1,398	1,748	1,314	1,824	1,235	1,408
April ..	1,306	1,678	1,511	1,430	1,398	1,748	1,333	1,835	1,243	1,419
May ..	1,306	1,669	1,525	1,429	1,398	1,748	1,331	1,795	1,249	1,410
June ..	1,306	1,669	1,510	1,406	1,398	1,748	1,346	1,790	1,658	1,417

NOTE.—The figures given in this table are comparable in the vertical columns but are not directly comparable horizontally.

C. THE CONTROL OF PRICES.

1. **General.**—Immediately after the outbreak of war the Commonwealth Government undertook control of prices and issued proclamations fixing as maximum prices of certain specified goods those prevailing on 31st August, 1939. These initial proclamations were issued from day to day by the Minister for Trade and Customs to peg prices of commodities which had risen or seemed likely to rise. These were emergency measures to hold prices in check pending establishment of machinery for price control.

At a Premiers' Conference held in Canberra on 9th September, 1939, agreement was reached as to the basis for co-operation between the State Governments and the Commonwealth in administering price control, and on 28th September the National Security

(Prices) Regulations were proclaimed by the Commonwealth under authority of the National Security Act. The Regulations established the basic principles of price control and provided for the appointment of a Commonwealth Prices Commissioner, conferring upon him extensive powers to control the prices of goods declared for that purpose by the Minister for Trade and Customs.

The Commonwealth Government has decided to continue price control and other anti-inflationary controls after the expiration of the National Security Act on 31st December, 1946, and to introduce legislation for this purpose. The Government has also announced that as conditions permit the control over the prices of individual commodities will be relaxed. The supply position is constantly being examined and already control over the growers' prices of most fruits and vegetables has been lifted in accordance with this policy.

2. State and Commonwealth Administration.—Price control is administered jointly by the Commonwealth and the States. The central office is located in Canberra and is a Commonwealth administration, being a branch of the Department of Trade and Customs. In September, 1939, a Deputy Prices Commissioner was appointed in each State by the Commonwealth on the nomination of the State Government. Deputy Commissioners administer the Regulations under the supervision of the Commonwealth Prices Commissioner who makes prices orders under the Regulations. Close co-operation is maintained with State instrumentalities which dealt with prices before the war, and with State Government Departments, such as Agriculture and Forestry, in relation to primary products.

3. Initial Phase of Control : Automatic Adjustment of Prices to Increases in Costs.—In order to avoid delays in the distribution of goods, general principles were adopted late in September, 1939, providing for the automatic adjustment of prices to increases in costs.

These principles were set out in Prices Regulation Order No. 2, which was amended from time to time, and finally consolidated in Prices Regulation Order No. 100. Selling prices were to be calculated by traders themselves on principles laid down in the Order, subject to official check. The basis of such prices was the cost of the goods being sold, plus a gross profit margin. This cost was defined in the Order as the actual into-store cost of goods being sold or, in certain circumstances, as the average cost of all goods held in stock at a given date. Replacement costs were never allowed as a basis for prices. Traders were in general allowed to add the percentage margin of profit which they had added to costs on 31st August, 1939. The Prices Commissioner could increase margins where they were shown to be inadequate, or reduce them where they were deemed to be too high.

Many commodities were excluded from the operation of the general Orders, and for these specific prices were fixed. Generally, such prices were calculated on the same principles as set out in Orders No. 2 and 100, but in special cases formulae were prescribed for the absorption into prices of increases in specified costs.

4. Change in Methods of Price Control : Pegging Profit Margins.—An important change in the methods of price control was introduced in April, 1942, by the issue of Prices Regulation Order No. 666 which limited the trader's profit margin to the actual money margin obtaining on 15th April, 1942. From that date onwards the trader was allowed to increase his prices only by the actual amount of increased cost. Increases in money margins of profit were permitted only with special approval. This new principle was adopted because the combination of increasing costs, increasing turnover and pre-war percentage profit margins justified a pegging of margins.

At this time also Australia was entering on a period of total war demanding all-round sacrifices, and the new measure of price control was introduced shortly after the pegging of interest, rent and wages. Following the entry of Japan into the war in December,

1941, costs of many goods imported into Australia rose substantially and so did costs of certain locally produced goods because of the withdrawal of a very large proportion of efficient labour from productive industry to war services. The retail price index-number rose by 9.5 per cent. in the first twelve months of the Pacific war (i.e. during 1942) compared with 5.4 per cent. in the previous year and 4.6 per cent. in the first twelve months of war.

5. Comments on Early Phases of Price Control.—The method of adjusting prices automatically to cover increasing costs gave flexibility and speed to the administration of price control when these qualities were highly important under the rapidly changing conditions of an economy transferring to a war footing under great strain. But it had weaknesses.

Firstly, rising costs and prices were disturbing to a community settling down to a total war effort. The continued rise of prices and uncertainty as to their future course created a feeling that profiteering was occurring and fear that inflation would occur. This was damaging to morale. Moreover, since costs could usually be covered by rises in price, there was no direct incentive for business men to increase efficiency to offset increasing costs. The level of wages had continually to be adjusted to the changing level of prices and public finances were continually disturbed by the changing levels of costs and prices.

6. Price Stabilization.—The next phase of price control was designed to secure price stability and was based partly on the Canadian Plan for an over-all ceiling on prices of goods and services. On 12th April, 1943, Prices Regulation Order No. 1,015 fixed, as ceiling prices, the prices actually being charged by individual traders on that date. There were certain exceptions, mainly perishable primary products. Special ceiling prices, to accommodate seasonal fluctuation, had already been arranged for most of these.

The ceiling applied not only to retail prices but to all prices, at every stage of production, manufacture and distribution. Every trader's selling prices were fixed as at those prevailing on the ceiling date, and consequently the prices he had to pay for his materials. Rents and interest rates were fixed and, in general, wage rates were pegged (except for "cost of living" adjustments) in February, 1942.

7. Rising Costs.—The price ceiling could not, however, eliminate all rising costs. A substantial proportion of materials is imported and prices paid overseas for imports cannot be controlled. Materials produced in Australia may have to be produced from less accessible or more restricted sources so that their real cost of production rises. Again, in some cases, war time stresses make it imperative to correct anomalies in the income structure with the result that various sections of primary producers and wage-earners receive increased incomes which represent increased costs.

These cost increases have to be met in some way which will not involve piercing the price ceiling.

8. Price Changes within the Price Stabilization Policy.—The price ceiling is not, as the expression implies, an indication of the Government's determination to peg rigidly every individual price at its level on a certain date, but rather evidence of the Government's intention not to allow the general price level, which is one of the most important determinants of the community's welfare, to be subject to the war-time vagaries of the cost structure. Over the major part of the field the cost structure itself has been stabilized. Where it is not, the price level is, in general, divorced from the cost structure and is determined in accordance with Government policy. Increases in costs are met in such ways as are consistent with that policy.

In some cases increases in prices are permitted. Sales to Government Departments are normally at a price high enough to cover costs of production. Where some manufacturer or trader, later in the chain of production and distribution, could absorb higher costs, the prices charged by the suppliers of his materials may be increased. Where one trader, producing in competition with others, has a ceiling price lower than that of his competitors, he may be allowed to raise his price towards the general level, and

thus cover some of the increased costs. Such adjustments are in general managed in such a way as to avoid a breach of the price stabilization policy, and to leave the general price level, as it affects consumers, practically unchanged.

Moreover, within the price ceiling, each trader is required to reduce his prices in accordance with Prices Regulations Orders 666 and 667 whenever a downward movement in his costs occurs.

9. Treatment of Costs.—Although the present plan provides for certain increases in prices, price rises are the exception rather than the rule. When increased costs cannot be absorbed within the process of production or distribution, they are generally met at the source by the payment of subsidies and thus prevented from disturbing the whole price structure.

Any trader in need of relief submits his case to the Prices Branch. If, on investigation, his production is regarded as essential, and relief is necessary and cannot be given without piercing the ceiling, the case is referred to a Price Stabilization Committee, whose first concern is to see whether all or part of the increased costs could be offset by increased economies in production, or absorbed by the trader. When the Committee is satisfied that relief is required and that a price increase would be inconsistent with the Government's policy of price stabilization, it recommends to the Minister for Trade and Customs that a subsidy be paid. This recommendation, if approved by the Minister, is subject to final approval by the Treasurer.

In cases where a *prima facie* case for relief is established, temporary subsidies are paid pending full investigation. This is particularly important in the case of imports, for importers receive full protection against increasing overseas prices, which are now the main cause of rising costs in Australia. Importers can ascertain, before placing orders, whether their proposed imports will be regarded as essential. Subsidies are paid in full, immediately on production of documents showing that the goods have arrived, and that the landed costs are higher than the costs which are the basis of existing ceilings.

The Commonwealth Prices Commissioner has ample powers to correct any abuses that may arise under the subsidy scheme, and this is an indispensable part of the price ceiling plan.

10. Special Action.—In addition to the measure designed to stabilize the general price level, special steps were proposed to correct certain deficiencies in the price structure. On account of the large proportion of imported materials used in the textile industries, the prices of clothing and household drapery had risen far more rapidly than had other prices. Similarly, vegetable and fruit prices were out of line owing to man-power shortages and the vagaries of the seasons. Furthermore, civilian production was falling below the essential level and threatened to make price control increasingly difficult.

It was, therefore, necessary to take special action to control the prices of certain goods, particularly clothing, meat and vegetables.

11. Maximum Prices.—As long as the ceiling consisted of prices determined for each trader by the price charged on 12th April, 1943, ample room existed for uncertainty among purchasers as to what was the legal ceiling price, and even for evasion.

To meet this difficulty the Prices Branch extended its policy of fixing specific maximum prices which no trader can exceed, whatever may have been his price on 12th April, 1943. Under these Orders the consumer knows what is the highest price he can be charged and the Administration is in a stronger position to police its Prices Regulations Orders. Some important Orders in this category have been made. Specific maximum prices have been fixed for hundreds of grocery lines, for many fruits and vegetables throughout Australia, for woollen piecegoods, for cotton yarns, for woollen goods, for standard cloths and for meat.

A further development in this direction is the widening of the group of commodities in respect of which traders are required either to display a list of maximum prices or to mark the goods themselves with actual selling prices. Groceries, some fruit and vegetables, liquor and furniture are included in this group.

12. **Governmental Action to adjust Increases in the Cost of Living.**—At the time the price ceiling was introduced the most recent measurement of retail prices was for March quarter, 1943 and represented prices about the middle of February or in the case of food and groceries the average of the months January to March inclusive. Between these dates and the 12th April, 1943, when the ceiling was imposed, there was a lapse of time, and, as was expected, the retail price index for June quarter was appreciably higher than that for March quarter. This was due to various causes. Seasonal rises had taken place in the prices of potatoes, meat and eggs. The new supply of winter clothing came on to the retail market in June quarter and many important lines had shown substantial increases in price. There were also some adjustments that had to be made to retail prices to absorb increases in wholesale costs that were still outstanding when the ceiling was introduced. Through the operation of the automatic "cost of living" adjustment clauses of the industrial awards, this rise in the retail price index for June quarter necessitated an increase in the basic wage and this involved increased costs for all employing labour.

The Government was aware at the time it introduced the price stabilization policy that this situation would probably arise, and as soon as it was advised of the nature and extent of the rise it took the necessary steps to absorb the rise in costs, firstly by undertaking to refund to employers amounts paid as basic wage increases and secondly by reducing prices in such a way as to offset the price increases that had occurred.

These measures were announced on 21st July, 1943. The price of tea was reduced by 1s. 2d. per lb. to its pre-war level and the standard retail maximum price for potatoes was fixed at 5 lb. for 6d. (capital city basis). In the former case importers, and in the latter case growers, received a subsidy. At the same time, also, sales tax on clothing and textiles was reduced from 12½ to 7½ per cent. to take effect as existing stocks were cleared.

The range of commodities chosen for reduction was small but all were universally consumed so that it was certain that the benefit of the reduction would be spread throughout the community. Prices of tea had risen by 50 per cent. and of clothing by an average of 75 per cent. since the outbreak of the war and seasonal fluctuations in potato prices had had most disturbing effects on the retail price index-number.

By December quarter 1943, the retail price index-number was again close to the pre-ceiling level of March quarter 1943.

The movement in the Retail Price Index-numbers since the September quarter 1939, is shown below:—

RETAIL PRICE INDEX-NUMBERS—1939-1945.

WEIGHTED AVERAGE OF SIX CAPITAL CITIES.

(Base: September Quarter, 1939 = 1000.)

Period.	Food.	Rent.	Clothing.	Miscellaneous.	All Items "C" Series.
September quarter 1939 ..	1000	1000	1000	1000	1000
" " 1940 ..	1019	1006	1146	1049	1046
" " 1941 ..	1017	1009	1349	1117	1102
" " 1942 ..	1147	1009	1605	1155	1207
March " 1943 ..	1130	1008	1685	1196	1226
June " 1943 ..	1150	1008	1754	1205	1248
September " 1943 ..	1126	1008	1734	1212	1237
December " 1943 ..	1104	1008	1718	1215	1226
March " 1944 ..	1109	1009	1715	1213	1227
June " 1944 ..	1115	1009	1709	1212	1228
September " 1944 ..	1126	1008	1714	1211	1233
December " 1944 ..	1111	1008	1725	1210	1229
March " 1945 ..	1117	1008	1700	1208	1226
June " 1945 ..	1127	1008	1694	1208	1228
September " 1945 ..	1131	1008	1693	1208	1229
December " 1945 ..	1120	1008	1732	1208	1233

D.—WAGES.

§ 1. Operations under Wages Board and Industrial Arbitration Acts.

1. **General.**—Particulars regarding operations under the Commonwealth and State Acts for the regulation of wages, hours and conditions of labour were first compiled for the year 1913, and reviews to the end of each annual period appear in the *Labour Reports* and in the *Quarterly Summaries of Australian Statistics*.

2. **Awards, Determinations and Industrial Agreements.**—The following table gives a summary for each of the years 1940–1944 :—

AWARDS AND DETERMINATIONS MADE AND INDUSTRIAL AGREEMENTS FILED.

State, etc.	1940.		1941.		1942.		1943.		1944.	
	Awards or Determinations made.	Agreements Filed.	Awards or Determinations made.	Agreements Filed.	Awards or Determinations made.	Agreements Filed.	Awards or Determinations made.	Agreements Filed.	Awards or Determinations made.	Agreements Filed.
New South Wales	70	22	65	49	72	23	24	11	36	10
Victoria	170	..	262	..	202	..	129	..	110	..
Queensland	34	45	53	16	27	29	17	35	14	29
South Australia	53	7	167	8	160	12	44	7	31	3
Western Australia	31	21	30	18	19	19	6	12	9	9
Tasmania	18	..	21	..	19	..	20	..	16	..
Commonwealth Court	25	13	7	3	52	20	43	17	45	13
Commonwealth Public Service Arbitrator	1	..	5	..	4	..	3	..	4	..
Total	402	108	610	94	555	103	286	82	265	64

3. **Boards Authorized, Awards, etc., in Force.**—Owing to difficulties encountered in the collection of these statistics the tables shown in issues prior to No. 35 under this heading have been discontinued.

§ 2. Rates of Wages and Hours of Labour.

1. **General.**—The collection of information respecting the current rates of wage payable in different callings and in occupations in various industries was first undertaken by this Bureau in the early part of 1913. The particulars are obtained primarily from awards, determinations and agreements under Commonwealth and State Industrial Acts, and therefore are the minimum rates prescribed. They refer generally to the capital city in each State, but in industries which are not carried on in the capital cities, e.g., mining, agriculture, etc., the rates in the more important centres are taken. In cases where no award, determination, or agreement is in force, particulars are taken of the ruling union or predominant rate. During recent years the number of predominant rates of wage included in the tabulations has been reduced considerably, as most of the industries and occupations are now covered by awards, determinations, or industrial agreements.

The index-numbers for male adult workers are computed with the weighted average wage in 1911 as base (= 1,000). In the case of females, however, it has not been possible to secure information for the years prior to 1914, and the index-numbers are therefore computed with the weighted average rate of wage payable to adult female workers in Australia at 30th April, 1914 as base (= 1,000).

An extensive tabular presentation of the minimum rates of wage for adult male and female workers in the main occupations in the capital city of each State is given each year in the Appendix to the *Labour Report*.

2. Weekly Rates of Wage, 1938 to 1944.—(i) *General*. The arithmetical average of the rates of wage given in the Appendix referred to is taken for each industrial group. These averages are weighted in accordance with census results to give the average of all occupations for the States and for Australia.

(ii) *Adult Males—States*. The following table gives the weighted average nominal weekly rates of wage payable to adult male workers at the dates specified:—

WAGE RATES OF ADULT MALES.

WEIGHTED AVERAGE NOMINAL WEEKLY RATES PAYABLE FOR A FULL WEEK'S WORK AND INDEX-NUMBERS OF WAGE RATES.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.
No. of Occupations included ..	874	909	627	567	489	482	3,948

RATES OF WAGE.

	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
31st December, 1938 ..	95 0	91 2	95 10	87 1	99 1	88 5	93 5
" " 1941 ..	105 4	104 5	101 9	100 3	110 2	99 3	104 3
" " 1942 ..	118 3	116 7	110 2	112 3	117 7	108 2	115 8
" " 1943 ..	121 3	119 7	116 10	113 9	122 2	116 9	119 5
31st March, 1944 ..	121 2	118 9	116 11	113 4	120 11	116 2	119 0
30th June, 1944 ..	121 2	118 8	116 11	113 4	121 3	116 5	119 0
30th September, 1944 ..	121 3	119 4	117 2	113 3	121 6	115 9	119 3
31st December, 1944 ..	121 4	119 6	118 0	113 7	121 10	116 6	119 6

INDEX-NUMBERS.

(Base : Weighted Average Wage for Australia (51s. 3d.), 1911 = 1,000.)

	1,854	1,780	1,870	1,700	1,933	1,725	1,823
31st December, 1938 ..	1,854	1,780	1,870	1,700	1,933	1,725	1,823
" " 1941 ..	2,056	2,037	1,985	1,957	2,149	1,937	2,034
" " 1942 ..	2,308	2,275	2,150	2,189	2,294	2,111	2,257
" " 1943 ..	2,366	2,333	2,279	2,219	2,383	2,279	2,329
31st March, 1944 ..	2,364	2,317	2,281	2,211	2,360	2,267	2,322
30th June, 1944 ..	2,364	2,315	2,282	2,211	2,365	2,271	2,322
30th September, 1944 ..	2,366	2,329	2,286	2,210	2,371	2,259	2,327
31st December, 1944 ..	2,367	2,332	2,303	2,216	2,377	2,273	2,332

Except in South Australia in 1933, wages declined in all States during the four years 1930 to 1933, the average rates at 31st December of the latter year being approximately 17 per cent. less than those ruling at the end of 1930. Increases were granted in each of the States during the next six years, the weighted average nominal rate for Australia at 31st December, 1938 being 16 per cent. higher than at the end of 1933. During the war years nominal weekly wages advanced annually in each State, the greatest increase occurring in 1942 (11 per cent. for Australia), followed by an increase of 3 per cent. in the following year, after which they remained comparatively stable. The rate at 31st December, 1944—the highest recorded to that date—was 28 per cent.

higher than at the same date in 1938. At the close of 1944 rates were highest in Western Australia, followed in the order named by New South Wales, Victoria, Queensland, Tasmania and South Australia. The highest weighted average rate for Australia was recorded at 31st December, 1944, namely, 119s. 6d. per week.

(iii) *Adult Males—Industrial Groups.* The following table shows for Australia the average weekly rates of wage and index-numbers in each industrial group, and for all groups at the dates specified.

WAGE RATES OF ADULT MALES.

WEIGHTED AVERAGE NOMINAL WEEKLY RATES FOR A FULL WEEK'S WORK AND INDEX-NUMBERS OF WAGE RATES IN EACH INDUSTRIAL GROUP.

NOTE.—Index-numbers for each industrial group and for all industrial groups are based on the average wage for all groups in 1911 (51s. 3d.) = 1,000. The index-numbers in this table are comparable throughout:—

		Weighted Average Nominal Weekly Rate of Wage and Index-number at—								
Industrial Group.		31st Dec., 1938.	31st Dec., 1941.	31st Dec., 1942.	31st Dec., 1943.	31st Mar., 1944.	30th June, 1944.	30th Sept., 1944.	31st Dec., 1944.	
I.	Wood, Furniture, etc.	{ Wage .. 98/2 .. Index-No. 1,916	{ Wage .. 108/5 .. Index-No. 2,116	{ Wage .. 118/2 .. Index-No. 2,306	{ Wage .. 121/0 .. Index-No. 2,362	{ Wage .. 120/5 .. Index-No. 2,350	{ Wage .. 120/9 .. Index-No. 2,356	{ Wage .. 121/0 .. Index-No. 2,361	{ Wage .. 121/1 .. Index-No. 2,363	
II.	Engineering, etc.	{ Wage .. 97/8 .. Index-No. 1,906	{ Wage .. 110/0 .. Index-No. 2,147	{ Wage .. 118/11 .. Index-No. 2,321	{ Wage .. 121/1 .. Index-No. 2,363	{ Wage .. 120/7 .. Index-No. 2,353	{ Wage .. 120/7 .. Index-No. 2,354	{ Wage .. 121/1 .. Index-No. 2,363	{ Wage .. 121/2 .. Index-No. 2,364	
III.	Food, Drink, etc.	{ Wage .. 95/2 .. Index-No. 1,857	{ Wage .. 106/1 .. Index-No. 2,071	{ Wage .. 114/3 .. Index-No. 2,229	{ Wage .. 117/8 .. Index-No. 2,297	{ Wage .. 117/4 .. Index-No. 2,289	{ Wage .. 117/5 .. Index-No. 2,290	{ Wage .. 117/10 .. Index-No. 2,300	{ Wage .. 118/0 .. Index-No. 2,303	
IV.	Clothing, Boots, etc.	{ Wage .. 91/9 .. Index-No. 1,790	{ Wage .. 105/7 .. Index-No. 2,060	{ Wage .. 116/10 .. Index-No. 2,280	{ Wage .. 119/7 .. Index-No. 2,334	{ Wage .. 119/3 .. Index-No. 2,327	{ Wage .. 118/8 .. Index-No. 2,316	{ Wage .. 119/0 .. Index-No. 2,321	{ Wage .. 119/0 .. Index-No. 2,321	
V.	Books, Printing, etc.	{ Wage .. 112/0 .. Index-No. 2,185	{ Wage .. 119/6 .. Index-No. 2,332	{ Wage .. 131/4 .. Index-No. 2,562	{ Wage .. 135/4 .. Index-No. 2,640	{ Wage .. 135/3 .. Index-No. 2,639	{ Wage .. 134/3 .. Index-No. 2,620	{ Wage .. 134/3 .. Index-No. 2,620	{ Wage .. 134/8 .. Index-No. 2,627	
VI.	Other Manu- facturing	{ Wage .. 94/4 .. Index-No. 1,840	{ Wage .. 107/0 .. Index-No. 2,088	{ Wage .. 116/4 .. Index-No. 2,270	{ Wage .. 118/9 .. Index-No. 2,316	{ Wage .. 118/2 .. Index-No. 2,305	{ Wage .. 118/3 .. Index-No. 2,307	{ Wage .. 118/7 .. Index-No. 2,313	{ Wage .. 118/8 .. Index-No. 2,315	
VII.	Building	{ Wage .. 104/6 .. Index-No. 2,039	{ Wage .. 116/11 .. Index-No. 2,282	{ Wage .. 127/3 .. Index-No. 2,484	{ Wage .. 128/11 .. Index-No. 2,516	{ Wage .. 128/5 .. Index-No. 2,505	{ Wage .. 128/6 .. Index-No. 2,507	{ Wage .. 129/0 .. Index-No. 2,516	{ Wage .. 129/1 .. Index-No. 2,518	
VIII.	Mining, etc.	{ Wage .. 108/2 .. Index-No. 2,111	{ Wage .. 115/1 .. Index-No. 2,245	{ Wage .. 123/9 .. Index-No. 2,415	{ Wage .. 126/6 .. Index-No. 2,468	{ Wage .. 126/2 .. Index-No. 2,462	{ Wage .. 126/5 .. Index-No. 2,467	{ Wage .. 126/7 .. Index-No. 2,471	{ Wage .. 126/11 .. Index-No. 2,477	
IX.	Railways, etc.	{ Wage .. 95/5 .. Index-No. 1,862	{ Wage .. 108/8 .. Index-No. 2,121	{ Wage .. 118/9 .. Index-No. 2,316	{ Wage .. 121/9 .. Index-No. 2,376	{ Wage .. 121/2 .. Index-No. 2,364	{ Wage .. 121/2 .. Index-No. 2,364	{ Wage .. 121/5 .. Index-No. 2,370	{ Wage .. 121/10 .. Index-No. 2,377	
X.	Other Land Transport	{ Wage .. 91/7 .. Index-No. 1,787	{ Wage .. 101/11 .. Index-No. 1,989	{ Wage .. 110/3 .. Index-No. 2,151	{ Wage .. 112/0 .. Index-No. 2,186	{ Wage .. 111/9 .. Index-No. 2,181	{ Wage .. 111/9 .. Index-No. 2,181	{ Wage .. 112/1 .. Index-No. 2,187	{ Wage .. 112/1 .. Index-No. 2,188	
XI.	Shipping, etc. (a)	{ Wage .. 97/6 .. Index-No. 1,902	{ Wage .. 106/9 .. Index-No. 2,082	{ Wage .. 119/9 .. Index-No. 2,336	{ Wage .. 122/10 .. Index-No. 2,397	{ Wage .. 122/2 .. Index-No. 2,383	{ Wage .. 122/2 .. Index-No. 2,383	{ Wage .. 122/2 .. Index-No. 2,383	{ Wage .. 122/2 .. Index-No. 2,383	
XII.	Agricultural, etc. (b)	{ Wage .. 82/3 .. Index-No. 1,604	{ Wage .. 93/6 .. Index-No. 1,825	{ Wage .. 111/8 .. Index-No. 2,179	{ Wage .. 118/11 .. Index-No. 2,321	{ Wage .. 118/9 .. Index-No. 2,318	{ Wage .. 118/8 .. Index-No. 2,316	{ Wage .. 118/9 .. Index-No. 2,317	{ Wage .. 119/4 .. Index-No. 2,328	
XIII.	Domestic, etc. (b)	{ Wage .. 88/3 .. Index-No. 1,722	{ Wage .. 97/10 .. Index-No. 1,908	{ Wage .. 107/5 .. Index-No. 2,095	{ Wage .. 109/8 .. Index-No. 2,140	{ Wage .. 109/3 .. Index-No. 2,131	{ Wage .. 109/6 .. Index-No. 2,136	{ Wage .. 109/9 .. Index-No. 2,142	{ Wage .. 109/9 .. Index-No. 2,142	
XIV.	Miscellaneous	{ Wage .. 90/5 .. Index-No. 1,764	{ Wage .. 101/2 .. Index-No. 1,974	{ Wage .. 111/1 .. Index-No. 2,167	{ Wage .. 114/3 .. Index-No. 2,230	{ Wage .. 113/10 .. Index-No. 2,221	{ Wage .. 113/10 .. Index-No. 2,221	{ Wage .. 114/1 .. Index-No. 2,227	{ Wage .. 114/5 .. Index-No. 2,232	
All Industrial Groups..		{ Wage .. 93/5 .. Index-No. 1,823	{ Wage .. 104/3 .. Index-No. 2,034	{ Wage .. 115/8 .. Index-No. 2,257	{ Wage .. 119/5 .. Index-No. 2,329	{ Wage .. 119/0 .. Index-No. 2,322	{ Wage .. 119/0 .. Index-No. 2,322	{ Wage .. 119/3 .. Index-No. 2,327	{ Wage .. 119/6 .. Index-No. 2,332	

(a) Includes the value of victualling and accommodation where supplied.

(b) Includes the value of board and lodging where supplied.

The foregoing table shows that the highest average weekly wage at 31st December, 1944, was recorded in Group V. (Books, Printing, etc.), 134s. 8d. per week, followed by Groups VII. (Building), 129s. 1d., VIII. (Mining, etc.), 126s. 11d., XI. (Shipping, etc.), 122s. 2d., IX. (Railways, etc.), 121s. 10d., II. (Engineering, etc.), 121s. 2d. and I. (Wood,

Furniture, etc.), 121s. 1d. The lowest average rate was recorded in Group XIII. (Domestic, etc.), 109s. 9d. Compared with those prevailing at 31st December, 1943, rates of wage decreased in all industrial groups during the first three months of 1944, remained practically stationary on the whole for the next three months, and in most of the groups increased during the second half of the year to rates slightly higher than those recorded at the end of the previous year.

(iv) *Adult Females—States.* The following table shows the weighted average nominal weekly rates of wage payable to adult female workers for a full week's work in each State and Australia at the dates specified.

WAGE RATES OF ADULT FEMALES.

WEIGHTED AVERAGE NOMINAL WEEKLY RATES PAYABLE FOR A FULL WEEK'S WORK AND INDEX-NUMBERS OF WAGE RATES.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.
No. of Occupations included ..	85	87	37	47	24	28	308

RATES OF WAGE.

	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
31st December, 1938 ..	51 10	50 7	53 6	47 9	54 4	49 8	51 3
" " 1941 ..	57 11	58 4	59 6	55 5	60 4	56 7	58 2
" " 1942 ..	63 10	64 11	66 4	60 3	64 2	61 3	64 4
" " 1943 ..	67 11	70 2	69 9	61 3	66 6	63 3	68 4
31st March, 1944 ..	70 2	73 0	73 5	65 6	65 9	66 9	71 1
30th June, 1944 ..	70 4	72 10	73 3	65 4	65 9	66 7	71 0
30th September, 1944 ..	71 3	73 11	73 4	65 4	65 10	66 8	71 9
31st December, 1944 ..	71 3	73 11	74 1	65 4	65 10	68 6	71 11

INDEX-NUMBERS.

(Base . Weighted Average for Australia (27s. 2d.), 30th April, 1914 = 1,000.)

	1,907	1,862	1,969	1,758	2,000	1,828	1,887
31st December, 1938 ..	1,907	1,862	1,969	1,758	2,000	1,828	1,887
" " 1941 ..	2,133	2,148	2,191	2,038	2,220	2,082	2,141
" " 1942 ..	2,350	2,391	2,442	2,216	2,361	2,255	2,368
" " 1943 ..	2,501	2,582	2,568	2,253	2,446	2,329	2,516
31st March, 1944 ..	2,582	2,688	2,703	2,412	2,419	2,456	2,616
30th June, 1944 ..	2,588	2,682	2,697	2,406	2,419	2,450	2,614
30th September, 1944 ..	2,622	2,720	2,699	2,406	2,422	2,453	2,642
31st December, 1944 ..	2,622	2,722	2,726	2,406	2,422	2,520	2,647

It should be noted that the base of these index numbers is 1914 and not 1911 as in the foregoing tables for adult males. This is because there is no tabulation for adult female rates prior to 1914.

Female rates followed the same downward course as male rates from 1930 to 1933. The weekly average nominal wage for Australia fell from 54s. 1d. at 31st December, 1929, to 43s. 5d. at the same date in 1933, a decline of 10s. 8d., or 20 per cent. As with the rates for males, increases were recorded in all States during the next eleven years, and the weighted average rate for Australia at 31st December, 1944, had advanced by 28s. 6d. per week over that ruling on 31st December, 1933, and was 40.3 per cent. above the average at 31st December, 1938. The weighted average rate for Australia at 31st December, 1944, namely, 71s. 11d. per week, was the highest recorded to that date.

(v) *Adult Females—Industrial Groups.* The following table shows the weighted average weekly rates of wage payable in Australia to adult female workers in the industrial groups in which they are mainly employed, and in all groups combined.

WAGE RATES OF ADULT FEMALES.

WEIGHTED AVERAGE NOMINAL WEEKLY RATES PAYABLE FOR A FULL WEEK'S WORK AND INDEX-NUMBERS OF WAGE RATES IN EACH INDUSTRIAL GROUP.

Industrial Group.						
Date.	III. Food, Drink, etc.	IV. Clothing, Boots, etc.	I., II., V., and VI. All Other Manufacturing.	XIII. Domestic, etc.(a)	XIV. Miscel- laneous.	All Groups.
RATES OF WAGE.						
31st December, 1938..	s. d. 47 1	s. d. 49 9	s. d. 50 6	s. d. 52 11	s. d. 54 6	s. d. 51 3
" " 1941..	53 5	57 4	58 0	58 9	60 7	58 2
" " 1942..	59 8	63 11	64 7	63 4	67 1	64 4
" " 1943..	62 3	66 2	71 5	65 10	75 11	68 4
31st March, 1944 ..	61 9	72 0	71 6	65 9	75 7	71 1
30th June, 1944 ..	62 0	71 8	71 5	66 3	75 7	71 0
30th September, 1944	62 5	72 9	71 9	66 11	75 10	71 9
31st December, 1944	62 7	72 9	71 10	67 1	76 4	71 11

INDEX-NUMBERS.

(Base: Weighted Average for Australia (27s. 2d.), 30th April, 1914 = 1,000.)

31st December, 1938..	1,732	1,831	1,859	1,947	2,004	1,887
" " 1941..	1,967	2,110	2,134	2,163	2,229	2,141
" " 1942..	2,195	2,354	2,378	2,332	2,468	2,368
" " 1943..	2,291	2,435	2,629	2,424	2,794	2,516
31st March, 1944 ..	2,274	2,659	2,631	2,421	2,782	2,616
30th June, 1944 ..	2,283	2,639	2,628	2,438	2,782	2,614
30th September, 1944	2,298	2,678	2,640	2,464	2,791	2,642
31st December, 1944..	2,304	2,678	2,643	2,470	2,809	2,647

(a) Includes the value of board and lodging, where supplied.

During 1944 the rate of wage for female employees in each industrial group showed an increase—IV. (Clothing, etc.), 6s. 7d. per week; XIII. (Domestic, etc.), 1s. 3d. per week; I., II., V., VI. (All other Manufacturing) and XIV. (Miscellaneous), 5d. per week; and III. (Food, etc.), 4d. per week. The weighted average for all groups increased by 3s. 7d. per week.

3. *Relative Hours of Labour and Hourly Rates of Wage, 1938 to 1944.*—(i) *General.* The rates of wage referred to in preceding paragraphs are the minima payable for a full week's work. The number of hours constituting a full week's work differs, however, in many instances between various trades and occupations in each State, and between the same trades and occupations in the several States. To secure what may be for some other purposes a better comparison, the results in the preceding paragraphs are reduced to a common basis, namely, the rate of wage per hour. Particulars as at the end of the years 1941 to 1944 compared with 1938 are given in the following table, for males and females separately in each State. These particulars relate to (a) the weighted average

nominal weekly wage; (b) the weighted average number of working hours constituting a full week's work; and (c) the weighted average hourly wage. The weighted average weekly wage relates to all industrial groups combined, and includes the value of board and lodging where supplied in land occupations, and the value of victualling and accommodation where supplied in marine occupations, whereas the number of working hours and the hourly wage relate to all industrial groups other than Groups XI. (Shipping), and XII. (Agricultural, Pastoral, etc.). Many of the occupations included in these groups are of a casual or seasonal nature, and the hours of labour are not generally regulated either by awards or determinations of industrial tribunals or otherwise, hence the necessary definite particulars for the computation of the average number of working hours are not available.

The general effect of reducing the rates of wages to a common basis (i.e., per hour) is to eliminate on comparison any apparent difference between the several States which may be due to unequal working time.

(ii) *Adult Males and Females.* Particulars of the weekly and hourly wages and hours of labour for adult males and females at the close of the years 1941 to 1944, compared with 1938 are given in the table hereunder:—

WEEKLY AND HOURLY WAGES AND HOURS OF LABOUR OF ADULT WORKERS.

31st December—		Particulars.		N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.
MALE WORKERS.										
1938 .	..	Weekly Wage (a)	..	95/0	91/2	95/10	87/1	99/1	88/5	93/5
		Working Hours (b)	..	44.01	45.75	43.67	46.31	44.34	46.00	44.82
		Hourly Wage (b)	..	2/3	2/0½	2/3	1/10½	2/4	1/11½	2/1½
1941..	..	Weekly Wage (a)	..	105/4	104/5	101/9	100/3	110/2	99/3	104/3
		Working Hours (b)	..	43.68	44.12	43.43	44.49	43.13	44.42	43.83
		Hourly Wage (b)	..	2/5½	2/5	2/5½	2/3½	2/7½	2/3	2/5½
1942..	..	Weekly Wage (a)	..	118/3	116/7	110/2	112/3	117/7	108/2	115/8
		Working Hours (b)	..	43.52	43.94	43.32	44.25	43.11	43.51	43.65
		Hourly Wage (b)	..	2/8½	2/8½	2/7½	2/6	2/9½	2/6½	2/8
1943..	..	Weekly Wage (a)	..	121/3	119/7	116/10	113/9	122/2	116/9	119/5
		Working Hours (b)	..	43.52	43.94	43.18	44.21	43.11	43.37	43.62
		Hourly Wage (b)	..	2/9½	2/8½	2/8½	2/6½	2/10½	2/7½	2/8½
1944..	..	Weekly Wage (a)	..	121/4	119/6	118/0	113/7	121/10	116/6	119/6
		Working Hours (b)	..	43.50	43.91	43.18	44.21	43.16	43.39	43.61
		Hourly Wage (b)	..	2/9½	2/8½	2/8½	2/6½	2/10	2/7½	2/8½
FEMALE WORKERS.										
1938..	..	Weekly Wage	..	51/10	50/7	53/6	47/9	54/4	49/8	51/3
		Working Hours	..	43.88	44.63	44.03	45.96	45.38	45.10	44.44
		Hourly Wage	..	1/2½	1/1½	1/2½	1/0½	1/2½	1/1½	1/1½
1941..	..	Weekly Wage	..	57/11	58/4	59/6	55/5	60/4	56/7	58/2
		Working Hours	..	43.88	44.19	44.00	44.00	44.00	44.00	44.03
		Hourly Wage	..	1/3½	1/3½	1/4½	1/3	1/4½	1/3½	1/3½
1942..	..	Weekly Wage	..	63/10	64/11	66/4	60/3	64/2	61/3	64/4
		Working Hours	..	43.88	44.19	44.00	44.00	44.00	44.00	44.03
		Hourly Wage	..	1/5½	1/5½	1/6	1/4½	1/5½	1/4½	1/5½
1943..	..	Weekly Wage	..	67/11	70/2	69/9	61/3	66/6	63/3	68/4
		Working Hours	..	43.88	44.19	44.00	44.00	44.00	44.00	44.03
		Hourly Wage	..	1/6½	1/7	1/7	1/4½	1/6½	1/5½	1/6½
1944..	..	Weekly Wage	..	71/3	73/11	74/1	65/4	65/10	68/6	71/11
		Working Hours	..	43.88	44.19	44.00	43.99	44.00	44.00	44.03
		Hourly Wage	..	1/7½	1/8	1/8½	1/5½	1/6	1/6½	1/7½

(a) Weighted average weekly rate in all industrial groups combined. (b) Weighted average working hours per week, and computed hourly rates of wage for all industrial groups excepting Groups XI. (Shipping, etc.), and XII. (Agricultural, Pastoral, etc.). Working hours have not been generally regulated by industrial tribunals for occupations classified in industrial groups XI. and XII.

(iii) *Index-Numbers.* The downward tendency in hours of labour for Australia commenced in the December quarter of 1924, when the weighted averages were 46.66 for males and 46.02 for females, and, excepting for slight increases in 1929 and 1930, the reduction has continued. During 1943 and 1944 there were slight reductions in most of the States, the most noticeable being in respect of Queensland and Tasmania males. The weighted averages for Australia at 31st December, 1944, were 43.61 hours for males and 44.03 hours for females. The effect of changes in hours of labour on the hourly rate of wage as compared with the general increase in the weekly wage is readily seen from the comparative index-numbers for all classes combined given in the following table. It should be noted that these comparative index-numbers for males and females are on the 1914 base as against the 1911 base of the earlier tables for adult males. This is because there is no tabulation for adult female rates prior to 1914:—

WEEKLY AND HOURLY INDEX-NUMBERS OF WAGE RATES : ADULT WORKERS

(Base : Weighted Average for Australia, 30th April, 1914* = 1,000.)

31st December—	Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.
MALE WORKERS.								
1938..	{ Weekly Wage ..	1,725	1,656	1,740	1,581	1,799	1,605	1,696
	{ Hourly Wage (a) ..	1,935	1,741	1,934	1,638	1,968	1,671	1,840
1941..	{ Weekly Wage ..	1,913	1,896	1,847	1,821	2,000	1,802	1,893
	{ Hourly Wage (a) ..	2,138	2,071	2,092	1,956	2,240	1,938	2,098
1942..	{ Weekly Wage ..	2,147	2,117	2,000	2,037	2,134	1,964	2,100
	{ Hourly Wage (a) ..	2,339	2,302	2,232	2,153	2,381	2,165	2,295
1943..	{ Weekly Wage ..	2,202	2,170	2,121	2,065	2,217	2,120	2,167
	{ Hourly Wage (a) ..	2,401	2,342	2,307	2,183	2,448	2,260	2,352
1944..	{ Weekly Wage ..	2,202	2,170	2,143	2,062	2,212	2,115	2,170
	{ Hourly Wage (a) ..	2,405	2,343	2,329	2,173	2,443	2,254	2,355

FEMALE WORKERS.

1938..	{ Weekly Wage ..	1,907	1,862	1,969	1,758	2,000	1,828	1,887
	{ Hourly Wage ..	2,134	2,050	2,196	1,878	2,164	1,991	2,084
1941..	{ Weekly Wage ..	2,133	2,148	2,191	2,038	2,220	2,082	2,141
	{ Hourly Wage ..	2,387	2,387	2,444	2,274	2,477	2,324	2,387
1942..	{ Weekly Wage ..	2,350	2,391	2,442	2,216	2,361	2,255	2,368
	{ Hourly Wage ..	2,630	2,657	2,726	2,473	2,636	2,517	2,642
1943..	{ Weekly Wage ..	2,501	2,582	2,568	2,253	2,446	2,329	2,516
	{ Hourly Wage ..	2,798	2,869	2,866	2,514	2,730	2,599	2,806
1944..	{ Weekly Wage ..	2,622	2,722	2,726	2,406	2,422	2,520	2,647
	{ Hourly Wage ..	2,934	3,024	3,042	2,685	2,703	2,813	2,952

(a) See footnote to following table.

* Approximate Weekly Rates—M = 55/1; F = 27/2. Hourly Rates—M = 1/2; F = 0/6½.

4. Weighted Average Nominal Weekly Hours of Labour, Adult Males.—The following table shows the weighted average nominal hours of labour (excluding overtime) in a full working week for adult male workers in each State and Australia at 31st December, 1941 to 1944 compared with 1938.

HOURS OF LABOUR.

INDEX-NUMBERS OF WEEKLY HOURS OF LABOUR OF ADULT MALES.

NOTE.—Index-numbers are based on the average hours of labour for Australia at 30th April, 1914 (48.93) = 1,000. Overtime is excluded.

31st December—	Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.
1938..	{ Weighted average weekly hours of labour (a) .. Index-numbers ..	44.01 899	45.75 935	43.67 893	46.31 946	44.34 906	46.00 940	44.82 916
1941..	{ Weighted average weekly hours of labour (a) .. Index-numbers ..	43.68 893	44.12 902	43.43 888	44.49 909	43.13 881	44.42 908	43.83 896
1942..	{ Weighted average weekly hours of labour (a) .. Index-numbers ..	43.52 889	43.94 898	43.32 885	44.25 904	43.11 881	43.51 889	43.65 892
1943..	{ Weighted average weekly hours of labour (a) .. Index-numbers ..	43.52 889	43.94 898	43.18 882	44.21 904	43.11 882	43.37 886	43.62 891
1944..	{ Weighted average weekly hours of labour (a) .. Index-numbers ..	43.50 889	43.91 897	43.18 882	44.21 904	43.16 882	43.39 887	43.61 891

(a) Weighted average working hours per week for all industrial groups excepting Groups XI. (Shipping), and XII. (Agricultural, Pastoral, etc.). Working hours have not been generally regulated by industrial tribunals for occupations classified in Industrial Groups XI. and XII.

5. Nominal and Effective Wages.—(i) *General*. Wages are said to be *nominal* when they represent the actual amounts of moneys received in return for labour, and are described as *effective* or *real* when expressed in terms of their equivalent purchasing power, that is, their purchasing power over some definite composite unit or regimen the cost of which can be ascertained at different times. The relation between nominal and *effective* or *real* wages was discussed at some length in *Labour Report* No. 6, and was also referred to in *Labour Report* No. 11.

Since it is possible to measure purchasing power over more than one composite unit or regimen it is equally possible to convert any given nominal wage series into more than one series of effective or real wages. Prior to 1936 it was the practice of this Bureau to compute effective wage index-numbers by dividing the nominal wage index-numbers by the corresponding retail price index-numbers for food, groceries and rent of all houses ("A" series). While wage rates were generally varied on the basis of the "A" series index-numbers there was a good deal to be said for this procedure. When the Commonwealth Court abandoned the "A" series, the merits of the "C" series for deflating nominal wage rates were strengthened. The "C" series covers food, groceries, rent for four and five-roomed houses, clothing and miscellaneous household requirements. As the compilation of the "A" series was discontinued after the June quarter of 1938, real wages to the end of 1937 are measured in terms of their purchasing power over both the "A" series regimen and the "C" series regimen in the following tables, and over the "C" series only for the subsequent years.

(ii) *Nominal Weekly Wage Index-numbers 1901 to 1944—States*. The following table shows for the period 1901 to 1944 the weighted average nominal weekly rates of wage payable for adult males in each State, the weighted average rate for Australia in 1911 being taken as the base (= 1,000). These results are based generally upon rates of wage prevailing in the capital city of each State, but in certain industries, such as mining, rates are necessarily taken for places other than the capital cities. The index-numbers for 1901 and 1911 are based on rates current at the end of December, annual averages

not being available. For 1914 and subsequent years, however, the index-numbers are based on the average rates current at the end of the four quarters of each year:—

NOMINAL WAGE INDEX-NUMBERS : ADULT MALES.

(Base : Weighted Average Wage for Australia, 1911 = 1,000.)

State.	1901.	1911.	1914.	1921.	1929.	1933.	1938.	1940.	1941.	1942.	1943.	1944.
New South Wales	858	1,003	1,093	1,862	2,012	1,638	1,829	1,920	2,024	2,210	2,357	2,365
Victoria ..	796	985	1,062	1,803	1,964	1,502	1,755	1,865	1,984	2,172	2,330	2,323
Queensland ..	901	997	1,035	1,879	1,976	1,720	1,854	1,903	1,971	2,071	2,207	2,288
South Australia ..	819	1,013	1,061	1,697	1,891	1,423	1,688	1,764	1,897	2,065	2,212	2,212
Western Australia	1,052	1,152	1,223	1,832	1,960	1,584	1,876	1,999	2,106	2,215	2,319	2,368
Tasmania ..	719	799	1,027	1,745	1,840	1,519	1,718	1,787	1,895	2,057	2,196	2,268
Australia ..	848	1,000	1,081	1,826	1,972	1,584	1,799	1,889	1,997	2,164	2,309	2,326

(iii) *Effective or Real Wage Index-numbers in each State, 1901–1944.* In obtaining the effective wage index-numbers in the following table the nominal wage index-numbers shown above have been divided by the corresponding retail price index-numbers for the capital city and multiplied by 1,000.

The index-numbers for 1901 and 1911 which are based on nominal rates of wage current at the end of December may be taken as substantially accurate, since the movement in wages during the course of any one year prior to 1914 was comparatively slight.

EFFECTIVE OR REAL WAGE INDEX-NUMBERS FOR ADULT MALES (FULL WORK).

Measured in terms of purchasing power over the "A" series regimen.

(Base : Weighted Average Real Wage in Australia in 1911 = 1,000)

State.	1901.	1911.	1914.	1921.	1929.	1931.	1932.	1933.	1934.	1935.	1936.	1937.
New South Wales	..	961	973	906	1,079	1,050	1,160	1,159	1,138	1,101	1,095	1,090
Victoria	915	1,037	961	1,038	1,084	1,162	1,126	1,139	1,114	1,092	1,075
Queensland	1,172	1,090	1,038	1,244	1,220	1,345	1,376	1,417	1,377	1,323	1,261
South Australia	948	957	929	1,027	1,067	1,178	1,133	1,152	1,144	1,149	1,143
Western Australia	..	1,024	1,023	1,070	1,139	1,143	1,232	1,212	1,246	1,221	1,260	1,251
Tasmania	827	838	942	977	1,064	1,104	1,067	1,094	1,086	1,099	1,094
Australia	964	1,000	948	1,076	1,082	1,185	1,168	1,178	1,148	1,135	1,121

Since the "C" series index-numbers were not compiled for periods prior to November, 1914, it has been assumed for the purpose of the following table that fluctuations between 1911, the base of the table, and 1914 in the "C" series would have been similar to the fluctuations observed in the "A" series.

EFFECTIVE OR REAL WAGE INDEX-NUMBERS FOR ADULT MALES (FULL WORK).

Measured in terms of purchasing power over the "C" series regimen.

(Base : Weighted Average Real Wage in Australia in 1911 = 1,000.)

State.	1911.	1914.	1921.	1929.	1933.	1937.	1938.	1939.	1940.	1941.	1942.	1943.	1944.
New South Wales	925	1,073	1,130	1,186	1,168	1,207	1,207	1,187	1,187	1,204	1,234
Victoria	954	1,084	1,164	1,147	1,155	1,180	1,180	1,167	1,187	1,190	1,233
Queensland	1,022	1,227	1,290	1,382	1,277	1,311	1,306	1,264	1,240	1,221	1,241
South Australia	914	1,034	1,099	1,086	1,128	1,146	1,147	1,136	1,158	1,159	1,209
Western Australia	1,043	1,096	1,152	1,177	1,242	1,281	1,308	1,293	1,279	1,259	1,282
Tasmania	902	984	1,108	1,110	1,141	1,167	1,153	1,139	1,142	1,150	1,184
Australia	1,000	948	1,087	1,151	1,187	1,178	1,209	1,211	1,190	1,194	1,196	1,246

In the table above, the effective wage index-numbers are computed to the one base, that of Australia for 1911. As the index-numbers are comparable in all respects, comparisons may be made as to the increase or decrease in the effective wage index-number for any State over any period of years.

(iv) *Effective or Real Wage Index-numbers in Australia, 1901-1944.* In the following table similar index-numbers are given for Australia as a whole. These are obtained by dividing the nominal wage index-numbers for Australia by the corresponding retail price index-numbers for the Six Capital Cities and multiplying by 1,000.

NOMINAL AND EFFECTIVE OR REAL WAGE INDEX-NUMBERS (FULL WORK).

(Base : *Weighted Average Real Wage in Australia in 1911 = 1,000.*)

Year.				Nominal Weekly Wage Index- numbers.	Retail Price Index-numbers.		Effective or Real Wage Index-numbers, i.e., Relative Purchasing Power over Regimen of—	
					"A" Series (Food, Groceries and Rent of All Houses).	"C" Series (All Items).		
							"A" Series.	"C" Series.
1901	..	..	..	848	880	..	964	..
1910	..	..	..	955	970	..	985	..
1911	..	..	..	1,000	1,000	(1,000)	1,000	(1,000)
1916	..	..	..	1,144	1,324	1,319	864	867
1917	..	..	..	1,226	1,318	1,406	930	872
1918	..	..	..	1,270	1,362	1,501	932	846
1919	..	..	..	1,370	1,510	1,695	907	808
1920	..	..	..	1,627	1,785	1,935	911	841
1921	..	..	..	1,826	1,697	1,680	1,076	1,087
1922	..	..	..	1,801	1,600	1,619	1,126	1,112
1923	..	..	..	1,805	1,700	1,664	1,062	1,085
1924	..	..	..	1,840	1,681	1,637	1,095	1,124
1925	..	..	..	1,861	1,722	1,654	1,081	1,125
1926	..	..	..	1,914	1,786	1,677	1,072	1,141
1927	..	..	..	1,946	1,766	1,662	1,102	1,171
1928	..	..	..	1,963	1,760	1,675	1,115	1,172
1929	..	..	..	1,972	1,822	1,713	1,082	1,151
1930	..	..	..	1,939	1,683	1,618	1,152	1,198
1931	..	..	..	1,752	1,479	1,448	1,185	1,210
1932	..	..	..	1,639	1,403	1,377	1,168	1,190
1933	..	..	..	1,584	1,345	1,335	1,178	1,187
1934	..	..	..	1,590	1,385	1,355	1,148	1,173
1935	..	..	..	1,612	1,420	1,380	1,135	1,169
1936	..	..	..	1,638	1,461	1,409	1,121	1,162
1937	..	..	..	1,707	1,507	1,448	1,133	1,178
1938	..	..	..	1,799	(a)	1,488	(a)	1,209
1939	..	..	..	1,846	(a)	1,526	(a)	1,211
1940	..	..	..	1,889	(a)	1,588	(a)	1,190
1941	..	..	..	1,997	(a)	1,673	(a)	1,194
1942	..	..	..	2,164	(a)	1,809	(a)	1,196
1943	..	..	..	2,309	(a)	1,876	(a)	1,231
1944	..	..	..	2,326	(a)	1,867	(a)	1,246

(a) Not available.

NOTE.—For years prior to 1914, the nominal wage index-numbers relate to the end of the year only, but from 1914 onwards these figures, in addition to those for retail prices, are averages for the whole year.

§ 3. Basic Wages in Australia.

1. **General.**—Basic wages in Australia are fixed by various industrial tribunals operating under Commonwealth and State Arbitration Acts, and are varied from time to time according to changes in cost of living, constitution of the family unit, etc. In the industrial legislation of New South Wales, Queensland, South Australia and Western Australia, provision is made for the tribunals appointed under the Acts to determine the basic rates of wage to be paid to adult unskilled workers. In Tasmania provision for the declaration of a basic rate of wage is not included in the industrial Acts in force. The Wages Board system operates in this State, and each Wages Board determines the rate of wage to be paid to the unskilled worker when the determination for an industry or calling is under review. In Victoria, however, the same Wages Board system exists, but by amendments of the Factories Act, operative from 17th October, 1934, Wages Boards are obliged to adopt Commonwealth Award rates and conditions "which such Boards are under the Factories and Shops Acts empowered to include in their determinations." As the power of the Commonwealth Arbitration Court is limited by the Constitution to the settlement, by conciliation and arbitration, of industrial disputes extending beyond the limits of any one State, no similar provision respecting the determination of a basic wage is to be found in the Commonwealth Conciliation and Arbitration Act. In practice, the Court does declare a Commonwealth basic wage and uses the wage so declared as a basis for all awards made by it in the exercise of its jurisdiction. That is, upon a new basic wage being declared, the awards made in the settlement of all interstate industrial disputes are re-opened and amended accordingly. In addition to the "basic" wage, these tribunals also determine what is known as the "secondary" wage—"the extra payment to be made for trained skill or other exceptional qualities necessary for an employee exercising the functions required."* The term "minimum" wage, on the other hand, is used to express the lowest rate payable in a particular industry, and is either equal to, or greater than, the "basic" wage.

2. **The Commonwealth Basic Wage.**—(1) *General.* The doctrine of a basic wage was propounded as far back as 1890 by Sir Samuel Griffith, Premier of Queensland, and the same principle was enunciated in the New South Wales Arbitration Court in somewhat similar terms by Mr. Justice Heydon in 1905. In spite, however, of these pronouncements and the fact that wage-fixing tribunals had been in operation as early as 1896 (in the State of Victoria), it was not until 1907 that the first basic wage, as such, was declared by a Court in Australia. This was made by Mr. Justice Higgins, President of the Commonwealth Court of Conciliation and Arbitration, and it was defined as the lowest wage which can be paid to an unskilled labourer on the basis of "the normal needs of an average employee regarded as a human being living in a civilized community."† This declaration was made by way of an order in terms of Section 2 (d) of the Excise Tariff 1906 in the matter of an application by H. V. McKay, of the Sunshine Harvester Works, Victoria, from which was derived the title of the "Harvester Wage" by which it is popularly known. The rate of wage declared in this case was 7s. per day or £2 2s. per week for Melbourne, the amount considered reasonable for "a family of about five."‡ The constituent parts of this amount were £1 5s. 5d. for food, 7s. for rent, and 9s. 7d. for all other expenditure.

The "Harvester" basic rate was adopted by the Commonwealth Arbitration Court for incorporation in its awards, and practically the same rates continued until 1913, when the Court took cognizance of the retail price index-numbers, covering food and groceries and rent of all houses ("A" Series), for the 30 more important towns of Australia, which had been published by the Commonwealth Statistician for the first time in the preceding year. These index-numbers had been taken back to 1901, with the year 1911 as base, and disclosed not only considerable percentage increases since 1907, but also large disparities in the relative purchasing power of money in the various towns. The basic rates for towns were thereafter fixed largely on their respective index-numbers, taking the index-number 875 for Melbourne for the year 1907 as being equivalent to the

* Mr. Justice Higgins—*A New Province of Law and Order*.

† *Ibid.*

‡ See page 423 for Court's interpretation in 1940 Basic Wage Inquiry of the "family unit".

"Harvester" rate of 42s. per week, or the base of the table 1,000 as being equivalent to 48s. per week. Exceptions were made in the case of many country towns, where certain "loadings" were applied to counterbalance their lower index-numbers due to cheaper rentals.*

In 1922 an amount known as the "Powers' 3s."† was added as a general "loading" to the weekly wage for the purpose of securing to the worker during a period of rising prices the full equivalent of the "Harvester" standard. In the same year the system was instituted of making regular quarterly adjustments of the basic wage to accord with variations in purchasing power as disclosed by the "A" Series retail price index-numbers, and of basing the adjustments on the index-number for the quarter in place of that for the previous calendar year or the year ended the preceding quarter.

The Commonwealth Conciliation and Arbitration Act provides that the "basic" wage, or any alteration thereof including the principles on which it is computed, together with any variation or interpretation of any award involving any such alteration, shall be considered by a Court constituted by the Chief Judge and not less than two other Judges, and must be approved by a majority of the members of that Court. By a judgment of the High Court on 21st April, 1933, the "basic" wage is taken to mean for the foregoing purpose, not only the "Harvester" wage but any "loadings" forming part of the primary wage of an unskilled labourer. A "loading" is defined as an addition to the "basic" wage as compensation for some peculiar condition of labour or environment, and not by way of "margin for skill". The wage payable for skilled labour is assessed on the basis of the "basic" wage, including "loadings."

The adequacy or otherwise of the "Harvester" standard has been the subject of much discussion, the author of the judgment himself urging on several occasions the need for its review. The abnormal conditions during and for some time after the 1914-19 War hindered such a review which was regarded as less urgent by reason of the fact that wages throughout Australia were being automatically adjusted to changes in retail prices. A Royal Commission (referred to later) was appointed in 1920 to assess a basic wage, but its recommendations were not carried out.

No change was made in the method of fixation and adjustment of the basic wage until the onset of the depression which began to be felt severely during 1930. Applications were then made to the Court by employers for some greater measure of reduction of wages than that afforded by the automatic adjustments to falling retail prices. An account of the proceedings which resulted in the Court reducing all wages under its jurisdiction by 10 per cent. from 1st February, 1931, is given in *Labour Report* No. 23, page 74. Reference is also made to the Court's refusal in June, 1932, and May, 1933, to remove this special reduction.

(ii) *Basic Wage Inquiry, 1934.* The "Harvester" standard, adjusted to retail price variations, continued as the theoretical basis of the wage of the Commonwealth Court until 30th April, 1934, when it was superseded by a judgment delivered on 17th April, 1934, full particulars of which appear in *Official Year Book* No. 29, 1936, page 545. The basic wage declared on this occasion (subsequently referred to as the "Needs" Basic Wage 1934) was as follows for the six capital cities:—

			<i>s.</i>	<i>d.</i>				<i>s.</i>	<i>d.</i>
Sydney	..	..	67	0	Adelaide	..	..	64	0
Melbourne	..	..	64	0	Perth	..	..	66	0
Brisbane	..	..	61	0	Hobart	..	..	67	0

Six Capital Cities, 65s. od.

* As these indexes covered only about 60 per cent. of household expenditure, a low index due to low rentals would wrongly presume low costs in the remaining uninvestigated 40 per cent. of household expenditure and *vice versa*.

† Awarded by Mr. Justice Powers in the Gas Workers' case.

The following is a comparison for the capital cities of the basic rates granted by the judgment and those ruling under previous practices of the Court :—

COMPARISON OF BASIC RATES AWARDED FOR CAPITAL CITIES.

City.	Now Rates Awarded 1st May, 1934, "C" Series.	Rates being paid prior to 1st May, 1934.		Increase or Decrease.			
		Under "D" Series less 10 per cent. "Cut."(a)	Under "A" Series (Full).(b)	Over "D" Series.		Over "A" Series.	
				Full.	Less 10 per cent. "Cut."	Full.	Less 10 per cent. "Cut."
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Sydney ..	67 0	66 11	72 0	-7 4	0 1	-5 0	+2 2
Melbourne ..	64 0	63 4	67 6	-6 4	0 8	-3 6	+3 3
Brisbane ..	61 0	59 4	62 0	-4 11	1 8	-1 0	+5 2
Adelaide ..	64 0	60 2	63 0	-2 10	3 10	+1 0	+7 4
Perth ..	66 0	59 3	64 0	+0 2	6 9	+2 0	+8 5
Hobart ..	67 0	64 10	70 0	-5 0	2 2	-3 0	+4 0
Six Capitals ..	65 0	63 9	68 0	-5 10	1 3	-3 0	+3 10

(a) Calculated to nearest rd., and including the equivalent of the "Powers' 3s." (b) Calculated to the nearest 6d. and including "Powers' 3s." (in full).

The 10 per cent. special reduction in wages referred to above ceased to operate upon the introduction of the new rates, and the basis of the periodical adjustments to retail price variations was transferred from the "A" and the "D" Series to the "C" Series of Index-numbers. The latter Series covers Food and Groceries; Rent of 4-roomed and 5-roomed Houses; Clothing; Fuel; Light; Household Utensils; Household Drapery; Fares; and other Miscellaneous household requirements. The base of the table (1,000) was taken by the Court as equal to 81s. per week. This gave the rates in Column 2 for the capital cities on the basis of their respective index-numbers. In effect, the new rate for the Six Capital Cities was the same as that previously paid under the "A" Series, without the "Powers' 3s." and without the 10 per cent. reduction. Certain towns gained and others lost in comparison with rates under the "A" Series, owing to the different relationship of towns under the "A" and the "C" Series.

In view, however, of the fact that the vast majority of workers were being paid the rates shown in Column 3 under the "D" Series Retail Price Index (which rates allowed for the 10 per cent. "Cut" in wages), the differences compared with the full basic wage standard established by the Court from 1st May, 1933, by means of this Series were as shown in Column 5. The full rates under this Series may be obtained by adding one-ninth to those rates in Column 3.

(iii) *Basic Wage Inquiry, 1937.* In May, 1937 the Commonwealth Court heard an application by the combined unions for an increase in the basic wage. The unions asked that the equivalent of the base (1,000) of the "C" Series Index be increased from 81s. to 93s. which on current index-numbers would have represented an average increase of about 10s. per week. The hearing extended from 10th May to 4th June, 1937, and the Court delivered judgment on 23rd June. The chief features of the judgment were:—

(a) Various amounts were added to the basic wage not as an integral, and therefore adjustable, part of that wage, but as "loadings" on the rates payable under the "shilling

table " as determined by the 1934 judgment. The latter was referred to in the judgment as the "needs" portion of the total resultant basic wages. The "loadings" and resultant "total basic wages" for the six capital cities were as follows:—

City.				"Needs" Basic Wage.	"Loading."	Total Basic Wage.
				s. d.	s. d.	s. d.
Sydney ..	..	..	..	72 0	6 0	78 0
Melbourne ..	..	..	..	69 0	6 0	75 0
Brisbane ..	..	..	..	68 0	6 0	74 0
Adelaide ..	..	..	..	68 0 (a)	4 0	72 0
Perth ..	..	..	..	70 0 (a)	4 0	74 0
Hobart ..	..	..	..	70 0 (b)	4 0	74 0
Six Capitals ..	..	..	..	70 0	5 0	75 0

(a) An additional 1s. was actually being paid under the "2s. minimum adjustment" provision.

(b) One shilling less was being paid under the "2s. minimum adjustment" provision.

The above were not to apply to railway employees, to whom the Court granted "loadings" of 5s. in New South Wales and Victoria, and 3s. in South Australia and Tasmania. Workers in the provincial towns were to receive "loadings"—6s. in New South Wales, Victoria and Queensland; and 4s. in South Australia, Western Australia and Tasmania. Wages based on "combination" index-numbers covering 4, 5 or 6 capital cities, or the 30 towns, would receive a "loading" of 5s. per week. The Maritime Workers were granted a "loading" of 21s. 6d. per month, and the Pastoral Workers received increases proportionate to the increase of the flat basic rate, from 68s. to 77s. in respect of the basis of piece work rates. Station hands received an increase of 3s. per week.

The "loadings" came into operation in two instalments, viz., from the beginning of the first pay-periods commencing in July and October, 1937.

The Maritime, Pastoral and Gas Workers' increases were to become fully operative in the first pay period in July.

(b) The former proviso that no adjustment of wages should take place unless the amount of variation reached at least 2s. was rescinded in favour of minimum variations of 1s. per week.

(c) The general policy laid down in the previous judgment in regard to rates for country towns was retained, with the exception that the rates for Geelong and Warrnambool were made the same as those for Melbourne.

(d) The basis of the adjustment of wages in accordance with the variations shown by retail price index-numbers was transferred from the "C" Series to a special "Court" Series based upon the "C" Series.

(e) Female and junior rates were left for adjustment by individual Judges when dealing with specific awards.

The main parts of the judgment are reprinted in Official Year Book No. 30.

(iv) "*Iag*" in *Adjustments*. The Commonwealth Court on 19th December, 1939, heard an application by the unions that the date of adjustment of the basic wage in accordance with the variations in the "Court" Series of index-numbers be brought nearer to the period upon which the variation was based. In a judgment delivered on the same day, the Court directed that such adjustments be made one month earlier. The effect, therefore, was to make future adjustments operative from the beginning of the first pay-period to commence in a February, a May, an August or a November.

(v) *Basic Wage Inquiry, 1940*. On 5th August, 1940 the Full Court commenced the hearing of an application by the combined unions for an increase in the existing basic wage by raising the value of 1,000 (the base of the "C" Series index upon which

the "Court" Series are based) from 81s. to 100s. per week, and the abolition of the present "Prosperity" loadings, which would be regarded as incorporated in the new rate mentioned. The hearing was interrupted for a period of ten weeks owing to the serious illness of the Chief Judge (the Hon. Sir George S. Beeby), but was completed on 28th November, 1940. Judgment was delivered on 7th February, 1941, wherein the Court unanimously refused to grant any increase, and decided that the application should not be dismissed but stood over for further consideration after 30th June, 1941. The application was refused mainly owing to the uncertainty of the economic outlook under existing war conditions.

In regard to the popular idea that the basic wage of the Commonwealth Court of Conciliation and Arbitration was identified with a specific family unit, the Chief Judge made the following statements to clarify the position: "The Court has always conceded the 'needs' of an average family should be kept in mind in fixing a basic wage. But it has never as the result of its own inquiry specifically declared what is an average family or what is the cost of a regimen of food, clothing, shelter and miscellaneous items necessary to maintain it in frugal comfort, or that a basic wage should give effect to any such finding. In the end economic possibilities have always been the determining factor What should be sought is the independent ascertainment and prescription of the highest basic wage that can be sustained by the total of industry in all its primary, secondary and ancillary forms. That, no doubt, is the object, but the adoption of something like the real average family as the unit to be provided for is not without its use in the attainment of that object. There is no clear means of measuring the general wage-paying capacity of the total industry of a country. All that can be done is to approximate, and one of the methods of approximation is to find out the actual wage upon which well-situated labourers are at the time maintaining the average family unit. We may be pardoned for saying that Mr. Justice Higgins very wisely used this criterion in the Harvester case. Moreover, if the average-sized families of such well-situated labourers have become accustomed to enjoy, and do actually enjoy, a certain standard of living in our community, it may reasonably be assumed that such a standard for all labourers is probably not beyond the capacity of industry in general to provide. Therefore in determining the amount of a living or basic wage there is sound economic warranty for the ascertainment of the real average family unit and of the cost of providing something like the standard which such families of well-employed labourers have already reached. But obviously, if the real average family unit is departed from, or a standard is sought for the likely maintenance of which experience gives no reason to hope, then an unrealizable wage-level may be ordained It may be that in the light of past experience the Court should conduct a specific inquiry as to the cost of living of an average family, but under war conditions, such an inquiry would be futile. More than ever before wage fixation is controlled by the economic outlook".

The Chief Judge further stated: "I was impressed by the new evidence and argument as to the inadequacy of the earnings of the lower-paid wage earners with families. On our accepted standards of living, looking at it from the needs point of view only, I regard the present basic wage as adequate for a family unit of three persons, but think it offers only a meagre existence for a family unit of four. When the unit gets beyond four hardship is often experienced." He suggested that the more logical system would be to grade the basic wage according to family responsibilities and that, notwithstanding the increase in aggregate wages, the benefits resulting from a re-apportionment of national income to increase the wages of those with more than one dependent child would more than offset the inflationary tendency of provision for a comprehensive scheme of child endowment, and that if a scheme of this nature were established, as recently announced by the Commonwealth Government,* future fixations of the basic wage would be greatly simplified. The other two Judges (O'Mara, J., and Piper, J.), in separate judgments, agreed with that of the Chief Judge, particularly in regard to the need for a child endowment scheme as a solution of the main problem.

* Legislation covering a scheme to become operative on 1st July, 1941, was actually passed by the Commonwealth Parliament on 3rd April, 1941—see page 429 for details.

(vi) *Current Commonwealth Basic Wage Rates.* The basic wage rates of the Commonwealth Court for adult males, including the "loadings" granted in 1937, operative at 1st May, 1946, are as follows :—

	s.	d.		s.	d.
New South Wales—			South Australia—		
Sydney	99	0	Adelaide	94	0
Newcastle	99	0(a)	Five Towns	94	0
Broken Hill	103	0			
Five Towns	99	0	Western Australia—		
			Perth	94	0
Victoria—			Kalgoorlie	102	0
Melbourne	98	0(b)	Geraldton	99	0
Geelong			Five Towns	95	0
Warramboul					
Mildura			Tasmania—		
Yallourn	104	6(c)	Hobart	95	0
Five Towns	98	0	Launceston	92	0
			Queenstown	95	0
			Five Towns	94	0
Queensland—					
Brisbane	94	0	Thirty Towns	97	0
Five Towns	94	0	Six Capital Cities	97	0

(a) Based on Sydney. (b) Based on Melbourne. (c) Based on Melbourne plus 6s. 6d. loading.

With the exception of those mentioned above, the rate for provincial towns is 3s. less than that of their respective capital cities. The rate for adult females—prescribed by the individual judges—is approximately 54 per cent. of the adult male rate.

3. *Basic Wage Rates for Females.*—Reference should be made to the Labour Report for 1943 (page 75) for a statement of the general principles followed by the Commonwealth Court of Conciliation and Arbitration in fixing basic wage rates for females in relation to those of males, and of the principles followed by the Women's Employment Board. This operated over the period March, 1942 to October, 1944 in respect only of females in war industries employed on work usually performed by males, or on work which, immediately prior to the outbreak of war, was not performed in Australia by any person.

4. *State Basic Wages.*—(i) *New South Wales.* The first determination under the New South Wales Industrial Arbitration Act of a standard living wage for adult male employees was made on 16th February, 1914, by the Court of Industrial Arbitration. The Board of Trade was established in 1918 with power to determine the living wage for adult male and female employees in the State. The Board made numerous declarations from 1918 to 1925, but ceased to function after the Industrial Arbitration (Amendment) Act 1926 established the Industrial Commission of New South Wales, which exercised the powers of the Board of Trade from 15th April, 1926.

The adult male rate was determined on the family unit of a man, wife and two children from 1914 to 1925; a man and wife only in 1927, with family allowances for dependent children; and a man, wife and one child in 1929, with family allowances for other dependent children. With the adoption in 1937 of the Commonwealth basic wage referred to below, however, the identification of a specified family unit with the basic wage disappeared.

Employees in rural industries are not covered by the rates shown in the following table; a living wage for rural workers of £3 6s. per week was in force for twelve months from October, 1921, and a rate of £4 4s. operated from June, 1927, to December, 1929, when the power of industrial tribunals to fix a living wage for rural workers was withdrawn.

The variations in the living wages determined by the industrial tribunals of New South Wales up to 27th April, 1937, are shown in the following table. Thereafter changes are made automatically in accordance with the procedure outlined in the next paragraph, and the latest current rate payable will be found in the table in sub-par. vi, page 428.

BASIC WAGE VARIATIONS IN NEW SOUTH WALES. (*State Jurisdiction.*)

Male.		Female.	
Date of Declaration.	Basic Wage per Week.	Date of Declaration.	Basic Wage per Week.
	£ s. d.		£ s. d.
16th February, 1914 ..	2 8 0	..	..
17th December, 1915 ..	2 12 6	..	..
18th August, 1916 ..	2 15 6	..	..
5th September, 1918 ..	3 0 0	17th December, 1918 ..	1 10 0
8th October, 1919 ..	3 17 0	23rd December, 1919 ..	1 19 0
8th October, 1920 ..	4 5 0	23rd December, 1920 ..	2 3 0
8th October, 1921 ..	4 2 0	22nd December, 1921 ..	2 1 0
12th May, 1922 ..	3 18 0	9th October, 1922 ..	1 19 6
10th April, 1923 ..	3 19 0	10th April, 1923 ..	2 0 0
7th September, 1923 ..	4 2 0	7th September, 1923 ..	2 1 6
24th August, 1925 ..	4 4 0	24th August, 1925 ..	2 2 6
27th June, 1927 ..	4 5 0	27th June, 1927 ..	2 6 0
20th December, 1929 ..	4 2 6	20th December, 1929 ..	2 4 6
26th August, 1932 ..	3 10 0	26th August, 1932 ..	1 18 0
11th April, 1933 ..	3 8 6	11th April, 1933 ..	1 17 0
20th October, 1933 ..	3 6 6	20th October, 1933 ..	1 16 0
26th April, 1934 ..	3 7 6	26th April, 1934 ..	1 16 6
18th April, 1935 ..	3 8 6	18th April, 1935 ..	1 17 0
24th April, 1936 ..	3 9 0	24th April, 1936 ..	(a) 1 17 6
27th October, 1936 ..	3 10 0	27th October, 1936 ..	1 18 0
27th April, 1937 ..	(b) 3 11 6	27th April, 1937 ..	1 18 6

(a) Rate declared, £1 15s. 6d., but law amended to provide a rate for females at 54 per cent. of that for males.

(b) See below.

Following on the judgment of the Commonwealth Arbitration Court referred to on page 421, the Government of New South Wales decided to make the State Basic Wage accord with the Commonwealth rates ruling in the State, and secured an amendment of the Industrial Arbitration Act to give effect thereto. The Act (No. 9 of 1937) was passed on 7th October, 1937, and was to operate from the commencement of the first pay period in October, practically from 1st October, 1937. The general principles laid down by the Commonwealth Court were followed as closely as practicable, and provision was made for the automatic adjustment of wages in conformity with variations in retail prices as shown by the Commonwealth Court's "All Items" Retail Price Index numbers, shortly known as the "Court" Series of Index-numbers. The Commonwealth Court's principle of treating the "prosperity loadings" as a separate and non-adjustable part of the total basic wage was adopted. The provisions of the main Acts for the periodic declaration of the living wage by the Industrial Commission were repealed, but the amending Act placed on the Commission the responsibility of altering all awards and agreements in conformity with the intentions of the new Act; to define boundaries within which the various rates are to operate; and to specify the appropriate "Court" Series retail price index-numbers to which they are to be related.

Compared with State adult basic wages of £3 11s. 6d. per week for males, and £1 18s. 6d. for females operative at the time, the alteration represented for males increases of 6s. 6d. in Sydney; 3s. 6d. in Country districts (with certain exceptions); and 4s. 6d. for railway and other Crown employees as defined by the Act. For females the increases were 54 per cent. of the foregoing, and amounted to 3s. 6d., 2s., and 2s. 6d., respectively.

The latest rates applicable in the metropolitan area from 1st November, 1945, are £4 19s. for males and £2 13s. 6d. for females.

The principle of supplementing wages by a payment in respect of dependent children under fourteen years of age was operative in New South Wales from July, 1927, until superseded by the Commonwealth Government Scheme operative from 1st July, 1941, and a brief account of the main features of the system appears in § 4, par. 2 hereafter.

(ii) *Victoria and Tasmania.* A State basic rate of wage is not declared in Victoria and Tasmania. In these States the Wages Board system of wage fixation is in

operation, and each Board determines the minimum rate of wage to be paid in the industry or calling under review. In the majority of cases the practice of the Commonwealth Arbitration Court of adjusting wages in accordance with variations in retail prices has been followed in the past by these bodies. In the case of Victoria, by amendments of the Factories and Shops Act No. 4275 of 1934 and No. 4461 of 1936, it is now obligatory on all Wages Boards to adopt such provisions of Commonwealth Awards which such Boards are under the Factory and Shops Acts empowered to include in their determinations. The Secretary of Labour is also empowered under this Act to make adjustments of wages according to variations in retail price index-numbers without calling the Board together. The latest Commonwealth adult rate for Melbourne is 98s. per week (operative from 1st August, 1944), and for Hobart 95s. per week (operative from 1st February, 1946). Female rates are roughly 54 per cent. of those rates.

(iii) *Queensland.* The first formal declaration by the Industrial Arbitration Court in this State of a basic wage was gazetted on 24th February, 1921. Prior to this declaration the rate of £3 17s. per week for adult males had been generally recognized by the Court in its awards as the basic or living wage. The basic wage is nominally intended to provide for the needs of a man, his wife and three children. The variations in the adult basic wages determined by the Industrial Arbitration Court are shown below:—

BASIC WAGE VARIATIONS IN QUEENSLAND. (*State Jurisdiction.*)

Date of Operation.	Adult Basic Wage.					
	Male.			Female.		
	£	s.	d.	£	s.	d.
1st March, 1921.. .. .	4	5	0	2	3	0
1st March, 1922.. .. .	4	0	0	2	1	0
28th September, 1925 (a).. .. .	4	5	0	2	3	0
1st August, 1930.. .. .	4	0	0	2	1	0
1st December, 1930.. .. .	3	17	0	1	19	6
1st July, 1931.. .. .	3	14	0	1	19	0
1st April, 1937.. .. .	3	18	0	2	1	0
1st April, 1938.. .. .	4	1	0	2	3	0
7th August, 1939.. .. .	4	4	0	2	5	0
31st March, 1941.. .. .	4	9	0	2	8	0
21st April, 1942 (b).. .. .	4	11	0	2	9	6

(a) Fixed by Basic Wage Act.
1942—see below for latest rates.

(b) Quarterly adjustments provided by judgment of 21st April,

The rates shown above are applicable throughout the South-Eastern Division of the State, which includes the metropolitan area; allowances are added for the following divisions—Northern, 10s.; North-Western, 17s. 4d.; Mackay, 5s. 6d.; and South-Western 7s. 4d. Half of these allowances are granted to females.

On 15th April, 1942, the Court declared the rates operative from 31st March, 1941, as adequately meeting the requirements of Section 9 of the *Industrial Conciliation and Arbitration Act* of 1932, having regard to the level of the "C" Series (All Items) retail price index for Brisbane for the December quarter, 1941. In order to ensure, however, that it would continue to do so under present exceptional conditions, the Court decided to make a quarterly declaration of the basic wage on the basis of the variations in the "cost of living" as disclosed by the "C" Series index for Brisbane, commencing with the figures for the March quarter, 1942. This declaration was duly made by the Court on 21st April, 1942, at the rates of £4 11s. for adult males, and £2 9s. 6d. for adult females. The latest rates (based on the index number for June quarter, 1943) are £4 17s. for adult males, and £2 14s. 6d. for adult females, and have been operative since 2nd August, 1943.

(iv) *South Australia.* The Industrial Code 1920-1937 provides that the Board of Industry shall after public inquiry declare the living wages to be paid to adult male and female employees. Prior to the passing of this Act the living wage was declared by the Industrial Court, the first award, 7s. per day, being made by Mr. Justice Gordon in the Brushmakers' Case in December, 1908.

The first declaration by the Board of Industry was made on 15th July, 1921, when the living wage for adult male employees in the metropolitan area was determined at £3 19s. 6d. per week.

The family unit is not specifically defined in the Code, but the South Australian Industrial Court in 1920 decided that the average employee in respect of whom the living wage is to be declared is a man with a wife and three children.

The variations in the living wages determined by the Board of Industry are shown below :—

BASIC WAGE VARIATIONS IN SOUTH AUSTRALIA. (State Jurisdiction.)

Male.			Female.		
Date of Operation.	Basic Wage per Week.		Date of Operation.	Basic Wage per Week.	
	£	s. d.		£	s. d.
4th August, 1921..	3	19 6	1st September, 1921 ..	1	15 0
27th April, 1922 ..	3	17 6	.. ..	..	..
8th November, 1923 ..	3	18 6	.. ..	..	..
15th May, 1924 ..	4	2 0	13th November, 1924 ..	1	18 0
13th August, 1925 ..	4	5 6	3rd September, 1925 ..	1	19 6
30th October, 1930 ..	3	15 0	15th January, 1931 ..	1	15 0
10th September, 1931 ..	3	3 0	24th December, 1931 ..	1	11 6
7th November, 1935 ..	3	6 0	16th January, 1936 ..	1	13 0
7th January, 1937 ..	3	9 6	29th April, 1937 ..	1	14 9
25th November, 1937 ..	3	14 0	25th November, 1937 ..	1	16 6
5th January, 1939 ..	3	18 0	5th January, 1939 ..	1	18 0
28th November, 1940 ..	4	4 0	28th November, 1940 ..	2	1 0
26th November, 1941 ..	4	7 0	26th November, 1941 ..	2	3 6
15th October, 1942 ..	4	14 0	15th October, 1942 ..	2	6 2

The last-mentioned rates were still operative at 1st May, 1946.

(v) *Western Australia.* The Industrial Arbitration Act 1912-1937 provides that the Court of Arbitration shall determine and declare a basic wage to operate from 1st July of each year and, wherever and whenever necessary, differential basic rates in special or defined areas of the State. In an amending Act of 1930 provision is made for quarterly adjustments when the Government Statistician reports a variation in the cost of living of 1s. or more per week compared with the previous quarter.

The first declaration of the basic wage by the Court of Arbitration, since the authority to fix one was vested in the Court in 1925, was made on 11th June, 1926. The family unit is not specifically defined in the Act, but it has been the practice of the Court to take as a basis for its calculations a man, his wife and two dependent children. The variations in the annual declarations of the Court of Arbitration are shown in the following table :—

BASIC WAGE VARIATIONS IN WESTERN AUSTRALIA. (State Jurisdiction.)

Date of Operation.	Metropolitan Area.		South-West Land Division (excluding Metropolitan Area).		Other Parts of State.	
	Male.	Female.	Male.	Female.	Male.	Female.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1st July, 1926 ..	4 5 0	2 5 11	4 5 0	2 5 11	4 5 0	2 5 11
" " 1929 ..	4 7 0	2 7 0	4 7 0	2 7 0	4 7 0	2 7 0
" " 1930 ..	4 6 0	2 6 5	4 5 0	2 5 11	4 5 0	2 5 11
" " 1931 ..	3 18 0	2 2 2	3 17 0	2 1 8	3 17 0	2 1 8
" " 1932 ..	3 12 0	1 18 11	3 13 6	1 19 8	3 18 0	2 2 2
" " 1933 ..	3 8 0	1 16 9	3 9 6	1 17 6	3 17 6	2 1 10
" " 1934 ..	3 9 6	1 17 6	3 10 0	1 17 10	3 19 6	2 2 11
" " 1935 ..	3 10 6	1 18 1	3 11 2	1 18 5	4 4 4	2 5 6
" " 1936 ..	3 10 6	1 18 1	3 11 9	1 18 9	4 6 0	2 6 5
" " 1937 ..	3 13 9	1 19 10	3 14 8	2 0 4	4 7 0	2 7 0
" " 1938 ..	4 0 0	2 3 2	4 1 0	2 3 9	4 13 3	2 10 4
" " 1939 ..	4 2 2	2 4 4	4 3 1	2 14 10	4 16 4	2 12 0
" " 1940 ..	4 2 8	2 4 8	4 3 3	2 4 11	4 16 3	2 12 0
" " 1941 ..	4 8 0	2 7 6	4 9 3	2 8 2	5 3 6	2 15 11
" " 1942 ..	4 10 5	2 8 10	4 10 10	2 9 1	5 5 7	2 17 0
" " 1943 ..	4 19 1	2 13 6	4 18 1	2 13 0	5 5 9	2 17 1
" " 1944 ..	4 19 11	2 13 11	4 19 8	2 13 10	5 7 1	2 17 10
" " 1945 ..	5 0 1	2 14 1	4 19 7	2 13 9	5 7 5	2 18 0

(a) Excludes Gold-fields areas, where rates were the same as those operating from 1st July, 1926.

The latest rates payable in accordance with the quarterly adjustments declared by the Court are shown in para. (vi) below.

(vi) *Current State Basic Wage Rates.* In the following table are given the current basic wage rates declared by the various State tribunals which were operative on 1st May, 1946:—

BASIC WEEKLY WAGE RATES FIXED BY STATE INDUSTRIAL TRIBUNALS.

State.	Basic Wage.		Date of Operation.	Family Unit (for Male Rate).
	Males.	Females.		
	£ s. d.	£ s. d.		
New South Wales ..	(a) 4 19 0	(a) 2 13 6	1.11.45	(b)
Victoria (c) ..	4 18 0	2 13 0	1.8.44	(c)
Queensland ..	(d) 4 17 0	2 14 6	2.8.43	Man, wife and three children
South Australia ..	4 14 0	2 6 2	15.10.42	" " "
Western Australia ..	(e) 5 1 1	(e) 2 14 7	13.5.46	Man, wife and two children
Tasmania (c) ..	4 15 0	2 11 6	1.2.46	(c)

(a) Sydney, Newcastle, Port Kembla-Wollongong, Broken Hill—males £5 3s., females £2 15s. 6d. Elsewhere, males £4 16s., females, £2 12s. 6d. (b) Commonwealth Basic Wage operative—no defined family unit. (c) None declared, but rates shown are those of Commonwealth Court which are followed to a large extent. (d) South-Eastern Division. Allowances are added for the following Divisions—Northern, 10s.; North-Western, 17s. 4d.; Mackay, 5s. 6d.; and South-Western, 7s. 4d. Half of these allowances are granted to females. (e) Metropolitan Area. Basic wage for Gold-fields areas and portions of State (excluding the South-West Land Division—males, £5 9s. 6d.; females £2 18s. 10d.; South-West Land Division (excluding Metropolitan Area)—males £4 19s. 7d.; females, £2 13s. 9d.

5. *Royal Commission on the Basic Wage, 1920.*—Only one comprehensive attempt has been made by the Commonwealth authorities to ascertain specifically what the actual requirements were in the various States according to reasonable standards of comfort, including all matters comprised in the ordinary expenditure of a household in respect of a family consisting of a man, wife and three children under fourteen years of age.

The attempt referred to was made by a Royal Commission which in its report, issued in 1920, recommended the following amounts for the various capital cities:—

	£	s.	d.
Sydney	5	17	1
Melbourne	5	16	6
Brisbane	5	6	2
Adelaide	5	16	1
Perth	5	13	11
Hobart	5	16	11
Six Capitals (Weighted Average)	5	15	8

The recommendations of this Commission were not carried out owing largely to the marked advance of the amounts suggested over ruling rates* and the grave doubts expressed as to the ability of industry to pay such rates.

§ 4. Child Endowment in Australia.

1. *General.*—The principle of supplementing wages by a payment in respect of dependent children under sixteen years of age became prominent in Australia following the recommendations of the Royal Commission on the Basic Wage of 1920, and was implemented in Australia as described in the following paragraphs. The system has been in force in various forms in England and on the Continent as far back as 1795, the first instance occurring in England in that year.

* The "Harvester" equivalent for Melbourne at the time (September quarter, 1920) was £4 13s. per week, but only £3 18s. to £4 2s. was being paid on the basis of an annual index-number.

2. **New South Wales.**—The first attempt in Australia to institute the system was made in New South Wales in 1919, when a Bill was introduced into the State Parliament to provide a flat basic wage for a man and wife, and an allowance of 5s. per week for each child, the latter rate to be reduced on a sliding scale and to cease automatically when the income reached an amount of £3 per week above the basic wage. The Bill was rejected, but the subject again came up in the Session of 1926–27, when Acts,* which have been amended during subsequent years, provided for the payment of child allowances. The original Act was assented to on 11th April, 1927, and provided for (a) the declaration of a basic wage for a man and wife,† and (b) the payment of an allowance of 5s. per week in respect of each dependent child, subject to the provision that child allowances would be paid only to the extent to which the total earnings of the worker and his family fall short of the sum represented by the *basic wage* plus child allowance at the rate of 5s. per week for each child under the age of fourteen years. Thus, a worker with three dependent children receiving £5 by way of wages would not be entitled to the allowance, but would receive it in respect of a fourth child. These payments in New South Wales operated from 23rd July, 1927. The basic wage was determined for a family unit of a man, wife and one child on 20th December, 1929, and an amending Act, assented to on 23rd December, 1929, excluded one child in each family from endowment. The fund from which child endowment payments were originally made was created by a levy on the wages bill of employers. The rate of tax from employers during the year 1930 was fixed at 1 per cent. From 1st July, 1931, the rate was fixed at 2 per cent., and from 1st January, 1932, at the rate of 5d. in the £1 on all wages above £3 per week. The levy was discontinued as from 1st January, 1934, the cost of endowment being met from the Special Income and Wages Tax, which is also used for other social services. The scheme was abolished upon the introduction of the National Scheme by the Commonwealth Government in July, 1941.

3. **Commonwealth Public Service.**—The first system of child endowment in Australia was instituted within the Commonwealth Public Service. It came into operation on 1st November, 1920, when, following on the recommendations of the Royal Commission on the Basic Wage,‡ the Commonwealth Government decided to pay a basic wage of £4 a week in certain cases and child allowances to officers at the rate of 5s. per week for each dependent child under fourteen years of age, with a limitation of salary plus allowance of £400 per annum. As the result of proceedings before the Public Service Arbitrator in 1923, these allowances were confirmed as a permanent part of the salary scheme, and the necessary fund to meet them was created by deducting the average value of the payment from the basic wage of all adult officers. In effect, therefore, the officers themselves provided the fund from which the allowance was paid. The deduction was originally £11 per annum, but later £12. The payment was subsequently limited to officers receiving up to £500 per annum including the allowance. Details regarding the introduction and method of calculating the payments under this scheme have been published in previous issues of the Official Year Book and will be found also in the *Labour Reports* issued by this Bureau. The scheme was abolished at the instance of the officers upon the introduction of the National Scheme by the Commonwealth Government in July, 1941, particulars of which appear below. The deduction of £12 per annum from salaries was consequently discontinued from 10th July, 1941.

4. **National Scheme.**—The Commonwealth Government, in June, 1927, called a conference in Melbourne of the Premiers of the several States to consider the question from a national standpoint. The Prime Minister submitted various estimates of cost of endowing dependent children under fourteen years of age in Australia at 5s. per week. After discussion, it was decided to refer the matter to a Royal Commission, to be appointed by the Commonwealth Government.

* Family Endowment Act 1927; Finance (Family Endowment Tax) Act 1927; Industrial Arbitration (Living Wage Declaration) Act 1927 and subsequent amendments.

† This was subsequently declared at £4 5s. per week for adult males and £2 6s. per week for adult females. A separate rate for rural employees was declared later at £4 4s. per week.

‡ The Chairman of the Commission (Mr. A. B. Piddington, K.C.), in a supplementary report, had suggested that the wage recommended (£5 16s.) be split up into a flat basic wage of £4 and a Child Endowment of 12s. per week for each dependent child, the fund for the payment of this allowance to be created by a tax on employers of 10s. 9d. per employee per week.

The Commission submitted its report on 15th December, 1928. It was not unanimous in its findings, and the opinions and recommendations of the members were embodied in two separate reports, which dealt exhaustively with the constitutional aspects, existing systems, industrial legislation, the basic wage, standard of living, regulation of wages, working conditions and cognate matters.

At the conference of Commonwealth and State Ministers held at Canberra in May, 1929, the Prime Minister stated that the Commonwealth Government was not prepared to adopt the scheme financed entirely from the proceeds of taxation, as had been recommended in the minority report. The Commonwealth Government agreed with the majority of the Commission that child endowment could not be separated from the control of the basic wage—a power which the Commonwealth did not possess and which the States were not prepared to relinquish. The Government, therefore, did not propose to establish any system of child endowment. It was generally agreed that any scheme which would increase the charges upon industry would be unwise at that particular time. The matter of child endowment was accordingly left to be dealt with as the State Governments should think proper.

The findings and recommendations in the *majority* and *minority* reports are given in *Labour Report*, No 19.

In 1941, the Commonwealth Government introduced a scheme of child endowment throughout Australia. The necessary legislation* was introduced into Parliament on 27th March, and finally passed on 3rd April, 1941. The main features of the scheme, which came into operation on 1st July, 1941, are as follows :—

(a) Payment at the rate of 7s. 6d. per week (increased from 5s. per week from 26th June, 1945) for all children under the age of sixteen in excess of one child in each family, provided the persons claiming the endowment, and the child in respect of whom the endowment is claimed, have resided in Australia for a period of twelve months preceding the date of claim.

(b) The endowment is payable to the mother of the child, or to such persons as are prescribed.

(c) Endowment is also payable to approved institutions, not wholly or mainly dependent upon the Commonwealth or a State for their revenue, in respect of all children under 16 years of age maintained therein.

(d) The scheme, which formerly was financed partly from Consolidated Revenue, partly from the abolition of the exemptions from taxation in respect of children after the first, and the major part from a tax of 2½ per cent. of all pay-rolls in excess of £20 per week, is now a charge on the National Welfare Fund.

(e) The general administration of the Act is under the control of the Director-General of Social Services, and the detailed administration is carried out by Deputy-Directors in each State and other officials appointed for the purposes of the Invalid and Old-age Pensions Act.

A summary of the operations under the Child Endowment Act from 1st July, 1941 to 30th June, 1945, is given on page 248 of Chapter VIII. "Public Benevolence, etc."

Consequent upon the operation of the Commonwealth Child Endowment Scheme, appropriate steps were taken for the termination of the schemes operating in New South Wales and the Commonwealth Public Service.

E.—EMPLOYMENT.

§ 1. Employment.

1. **Total Occupied Persons.**—The following estimates of the total numbers of occupied males and females are based principally on data from the Census (June, 1933), the National Register (July, 1939), the Civilian Register (June, 1943), and the Occupation Survey (June, 1945). These sources of information have been supplemented by Pay-roll Tax returns, which commenced in July, 1941.

* Act No. 8, 1941 (Child Endowment Act) as amended by No. 5, 1942, and Nos. 10 and 41, 1945; Act No. 2, 1941 (Pay-roll Tax Assessment Act); and Act No. 3, 1941 (Pay-roll Tax Act).

The estimates include all persons fully occupied as employers, as workers in businesses or on farms on their own account, or as wage or salary earners fully employed, or occupied as casual, part time, intermittent or seasonal workers. Wage earners unemployed in the sense that they are incapacitated or have no work to which to go are excluded, as also are persons engaged on Government relief works.

All unpaid helpers in non-rural industry have been included with wage and salary earners. Male unpaid helpers in rural industry have been included with employers and workers on own account, as it is considered that the majority of these are sons or other close relatives of farmers working in an unofficial partnership, or are under instruction by farmers. Unpaid female helpers on farms are very numerous, but their exact number is not known. Generally, they combine part-time dairy or other farm work with part-time duties in the home. Together with women occupied in unpaid home duties, they have been excluded from the category of occupied persons.

Members of the Defence Forces of Australia, whether permanent or enlisted for war-time service only, have not been included in the estimates which refer only to occupied civilians. Australian civilians employed by Australian or Allied Defence Forces are included in the totals, as are also persons engaged on defence works construction either as members of the Civil Construction Corps or other employees of the Allied Works Council.

TOTAL OCCUPIED PERSONS : AUSTRALIA, 1933 TO 1945.

(Excluding Persons on Paid Strength of Defence Forces.)

(Thousands.)

Year and Month.	Employers and Workers on Own Account.			Wage and Salary Earners.				Total Occupied Persons.
	Rural.	Non-Rural.	Total.	Rural.	Private Domestic.	Other.	Total.	

MALES.

1933—June ..	292.4	248.3	540.7	200.0	..	992.1	1,192.1	1,732.8
1939—July ..	300.0	299.0	599.0	202.0	..	1,293.1	1,495.1	2,094.1
1941—July ..	284.0	208.0	492.0	188.0	..	1,303.4	1,551.4	2,043.4
1942—June ..	256.0	137.8	393.8	145.5	..	1,309.5	1,455.0	1,848.8
1943—June ..	261.8	150.2	412.0	120.2	..	1,273.9	1,394.1	1,806.1
1945—June(a) ..	286.5	188.1	474.6	129.8	..	1,294.6	1,424.4	1,899.0

FEMALES.

1933—June ..	15.1	56.1	71.2	3.2	106.7	340.8	450.7	521.9
1939—July ..	16.0	62.0	78.0	4.0	124.5	437.1	565.6	643.6
1941—July ..	14.0	56.8	70.8	6.0	100.0	560.5	666.5	737.3
1942—June ..	12.0	51.9	63.9	16.0	75.0	609.1	700.1	764.0
1943—June ..	11.7	34.4	46.1	28.0	35.9	646.3	710.2	756.3
1945—June(a) ..	16.8	43.3	60.1	23.0	47.6	619.5	690.1	750.2

PERSONS.

1933—June ..	307.5	304.4	611.9	203.2	106.7	1,332.9	1,642.8	2,254.7
1939—July ..	316.0	361.0	677.0	206.0	124.5	1,730.2	2,060.7	2,737.7
1941—July ..	298.0	264.8	562.8	194.0	100.0	1,923.9	2,217.9	2,780.7
1942—June ..	268.0	189.7	457.7	161.5	75.0	1,918.6	2,155.1	2,612.8
1943—June ..	273.5	184.6	458.1	148.2	35.9	1,920.2	2,104.3	2,562.4
1945—June(a) ..	303.3	231.4	534.7	152.8	47.6	1,914.1	2,114.5	2,649.2

(a) Preliminary results of Occupation Survey, 1st June, 1945.

From June, 1933, to July, 1939, the number of occupied persons of both sexes had increased by 483,000, due partly to normal increase in the number of available

breadwinners and partly to the decrease in the number unemployed which decreased by 265,400 from 563,400 to 298,000. During the war years from July, 1939, to June, 1943, the number of males occupied as civilians decreased by 288,000, while females occupied as civilians increased by nearly 113,000, representing a net decrease of 175,000 persons. This decrease, together with decrease of unemployment (272,000), normal increase of breadwinners (91,000) and an abnormal war-time increase of 178,000 breadwinners (persons who would not otherwise have been working), balanced the net intake into the Defence Forces at June, 1943 (716,000).

2. **Wage and Salary Earners in Employment.**—Based on Pay-roll Tax returns, estimates of wage and salary earners in employment, excluding rural employment and females in domestic work in private homes, are made monthly. Estimates for each State, and for Australia as a whole, are shown in the following table.

WAGE AND SALARY EARNERS IN EMPLOYMENT, 1933 TO 1945.

(Excluding Rural Workers, Domestic Workers in Private Homes, and Persons on Paid Strength of Defence Forces.)

(Thousands.)

Year and Month.	New South Wales.	Vic-toria.	Queens-land.	South Aus-tralia.	Western Aus-tralia.	Tas-man-ia.	Aus-tralia. (a)
MALES.							
1933—June	380.7	288.6	139.8	80.5	70.1	29.0	992.1
1939—July	529.9	357.6	172.8	106.7	82.9	37.4	1,293.1
1941—July	547.3	403.4	166.4	118.4	82.3	38.6	1,363.4
November	556.3	405.1	168.0	121.9	83.3	39.3	1,381.3
1942—June	534.5	375.5	165.7	116.9	71.7	37.5	1,309.5
1943—June	524.6	355.3	167.5	110.7	70.4	36.9	1,273.9
1945—June(b)	534.2	359.1	168.8	109.6	75.6	39.6	1,294.6
FEMALES.							
1933—June	125.8	118.2	40.5	26.0	20.5	9.1	340.8
1939—July	168.0	142.8	53.2	34.0	26.2	11.6	437.1
1941—July	218.8	187.5	61.7	44.1	31.4	15.3	560.5
November	230.1	194.5	63.9	46.5	32.7	15.3	584.7
1942—June	236.1	200.2	68.8	52.4	33.8	16.3	609.1
1943—June	255.5	207.1	75.6	53.8	35.8	16.8	646.3
1945—June(b)	247.6	193.8	74.9	48.9	35.6	16.6	619.5
PERSONS.							
1933—June	506.5	406.8	180.3	106.5	90.6	38.1	1,332.9
1939—July	697.9	500.4	226.0	140.7	109.1	49.0	1,730.2
1941—July	766.1	590.9	228.1	162.5	113.7	53.9	1,923.9
November	786.4	599.6	231.9	168.4	116.0	54.6	1,966.0
1942—June	770.6	575.7	234.5	169.3	105.5	53.8	1,918.6
1943—June	780.1	562.4	243.1	164.5	106.2	53.7	1,920.2
1945—June(b)	781.8	552.9	243.7	158.5	111.2	56.2	1,914.1

(a) Includes Australian Capital Territory and Northern Territory.

(b) Preliminary results of Occupation Survey, 1st June, 1945.

Estimates for recent months for Australia, corresponding with the above, together with details for certain industrial groups, are published regularly in the *Monthly Review of Business Statistics*.

3 **Employment in Factories.**—Actual mid-monthly factory employment derived from the results of annual factory censuses is published in the *Production Bulletin* issued by this Bureau. Estimated employment in each State in later months, subject to revision, may be obtained from the *Monthly Review of Business Statistics*.

An index of factory employment in Australia, published in the *Monthly Review of Business Statistics*, shows that in 1944-45 factory employment was 38 per cent. higher than average employment for the three years ended 1938-39.

4. **Index of Employment in Retail Stores.**—Indexes for Australia and each State are published in the *Monthly Review of Business Statistics* and are based on Pay-roll Tax returns, which commenced in July, 1941.

The index shows that in Australia in June, 1945 employment in retail stores was 14 per cent. lower than in July, 1941.

5. **Seasonal Employment in Australia.**—An investigation concerning the extent of seasonal employment in Australia was made during 1928 and the results were published in the Official Year Book, No. 22, and in *Labour Report*, No. 19.

§ 2. Unemployment.

1. **Total Persons Unemployed.**—The total number of persons unemployed has been recorded only at the dates of the various censuses. The Census records include all persons who state that they are unemployed, and distinguish between unemployment on account of sickness, accident, scarcity of work, industrial dispute, and all other causes combined. The following table sets out the number of unemployed at the Censuses of 1911, 1921 and 1933, the National Register, 1939, the Civilian Register, 1943, and the Occupation Survey, 1945, together with the percentage which the unemployed bore at each time, to all wage and salary earners of the same sex, comprising those estimated to be in employment and those unemployed. Of the total wage and salary earners shown below as being unemployed at the Census of 30th June, 1933, 1.4 per cent. was on account of sickness and accident.

UNEMPLOYMENT (ALL CAUSES) : AUSTRALIA.

Year and Month.	Wage and Salary Earners Unemployed.			Percentage of Wage and Salary Earners Unemployed.		
	Males.	Females.	Total.	Males.	Females.	Total.
	'000.	'000.	'000.	%	%	%
1911—April (Census)	48.0	8.3	56.3	4.3	2.7	4.0
1921—April "	139.4	21.5	160.9	10.7	5.7	9.6
1933—June (a) "	460.3	103.1	563.4	27.9	19.1	25.8
1939—July (b)	264.0	34.0	298.0	15.0	5.7	12.6
1943—June (c)	19.5	6.3	25.8	1.4	0.9	1.2
1945—June (d) ..	39.9	16.2	56.1	2.7	2.3	2.6

(a) The figures shown for 1933 are in excess of those actually recorded at the Census through an allowance having been made for a number of youths and girls who would normally have been wage and salary earners, but who, on account of the economic depression, having never been employed, were not classed as wage and salary earners.

(b) Derived from National Register, 1939.

(c) Derived from Civilian Register, 1943. See comment below.

(d) Derived from Occupation Survey, 1945.

In 1939, the National Register recorded men aged 18 to 64 years who were unemployed, but the numbers of these were adjusted on account of men who failed to make National Register returns. This information, in conjunction with other data available from various sources, provided an estimate of the total number of males and females unemployed in July, 1939.

The unemployed have been estimated to be approximately $12\frac{1}{2}$ per cent. in July, 1939, 4 per cent. in July, 1941, 1 per cent. in June, 1943, and $2\frac{1}{2}$ per cent. in June, 1945, calculated as a proportion of all available wage and salary earners excluding those absent in the defence forces, but including persons who have become wage and salary earners as a result of war conditions. Under conditions of intensive mobilization of man-power resources for war-time purposes, involuntary unemployment in 1943 and 1945 was practically nil, and unemployment then existing was almost entirely due to sickness, accident, etc. Owing to absence of specific definition on the civil registration card, the numbers unemployed, as recorded and stated above, cannot be regarded as comparable with Census figures.

2. **Unemployment of Members of Trade Unions.**—(i) *General.* The particulars given in the following tables are based upon information furnished by the secretaries of trade unions. The membership of the unions regularly reporting exceeds

670,000, consisting predominantly of males and representing about 56 per cent. of the total trade union membership, and between 20 and 25 per cent. of all wage and salary earners. Unemployment returns are not collected from unions the members of which are in permanent employment, such as railway and tramway employees, and public servants, or from unions whose members are casually employed (wharf labourers, etc.). Very few of the unions pay unemployment benefit, but the majority of the larger organizations have permanent secretaries and organizers who are closely in touch with the members and with the state of trade within their particular industries. In many cases unemployment registers are kept, and provision is made in the rules for payment of reduced subscriptions by members out of work. Seasonal fluctuations in unemployment have been provided for by collecting returns quarterly since 1st January, 1913. The quarterly figures relate to persons who were out of work for three days or more during a specified week in each quarter and exclude persons out of work through strikes and lock-outs, except those outside the industry who are, indirectly affected. The yearly figures quoted represent the average of the four quarters.

The value of the percentages of unemployment derived from trade union returns is in the indication they give of the trend of unemployment among trade unionists as reported by secretaries of trade unions.

(ii) *Summary for Australia, 1938 to 1944.* The following table gives a summary for Australia for the last seven years and quarterly for the years 1939 and 1942 to 1944. Particulars of unemployment percentages for later periods will be found in the Appendix and at intervals since 1911 on page 451:—

UNEMPLOYMENT OF MEMBERS OF TRADE UNIONS : AUSTRALIA.

Period.	Unions.	Membership.	Unemployed.	
			Number.	Percentage.
1938 Year	390	466,325	40,138	8.7
1939 "	396	476,918	45,967	9.7
1940 "	394	491,352	39,116	8.0
1941 "	395	536,660	20,013	3.7
1942 "	394	613,534	9,754	1.6
1943 "	390	678,713	7,545	1.1
1944 "	389	681,684	8,073	1.2
1939 March Quarter	395	474,277	45,543	9.6
June "	398	477,149	45,183	9.5
September "	397	478,000	48,888	10.2
December "	392	478,245	44,253	9.3
1942 March "	394	588,525	10,767	1.8
June "	394	603,066	10,296	1.7
September "	394	617,076	9,603	1.6
December "	394	645,467	8,350	1.3
1943 March "	391	665,334	8,021	1.2
June "	390	680,292	7,423	1.1
September "	390	682,557	7,356	1.1
December "	390	686,667	7,381	1.1
1944 March "	390	688,381	6,987	1.0
June "	389	683,463	9,433	1.4
September "	389	680,218	7,947	1.2
December "	389	674,695	7,925	1.2

NOTE.—Similar figures for each of the four quarters of the years since 1912 will be found in the *Labour Reports*. The quarterly figures show the number of persons who were out of work for three days or more during a specified week in each quarter, and the annual figures, the average of the four quarters; the returns do not include persons out of work through strikes or lock-outs, except those outside the industry concerned who are indirectly affected.

The highest percentage of unemployed yet recorded (30.0) was reached in the quarter ended June, 1932.

(iii) *Australia by Industrial Groups.* The next table shows the percentages unemployed in industrial groups. Industries or occupations in which employment is stable, such as railways, and those which are subject to exceptional fluctuations, such as wharf labour, agricultural, pastoral, etc., are not included. Other occupations—domestic, hotel employees, etc.—are included in the "Other and Miscellaneous" group, as their returns are not sufficiently representative:—

UNEMPLOYMENT OF MEMBERS OF TRADE UNIONS IN INDUSTRIAL GROUPS : AUSTRALIA, 1943 and 1944.

Industrial Group.	Unions Reporting.				Unemployed.			
	Number.		Members.		Number.		Percentage.	
	1943.	1944.	1943.	1944.	1943.	1944.	1943.	1944.
Manufacturing—								
I. Wood, Furniture, etc. . .	16	16	16,196	16,691	166	167	1.0	1.0
II. Engineering, Metal Works, etc. . .	62	62	207,384	206,365	1,103	2,319	0.6	1.1
III. Food, Drink, Tobacco, etc. . .	54	54	40,532	41,093	1,248	984	3.1	2.3
IV. Clothing, Hats, Boots, etc. . .	22	22	59,043	61,921	517	563	0.9	0.9
V. Books, Printing, etc. . .	12	12	23,175	23,079	44	76	0.2	0.3
VI. Other Manufacturing . .	64	64	81,710	71,406	775	777	0.9	1.1
VII. Building . .	46	46	62,590	61,746	849	857	1.3	1.4
VIII. Mining, Quarrying, etc. . .	22	22	28,538	28,153	1,006	844	3.5	3.0
X. Land Transport other than Railway and Tramway Services . .	13	13	22,703	23,105	319	376	1.4	1.6
IX., XI., XII., XIII., and XIV. Other and Miscellaneous . .	79	78	136,833	146,925	1,518	1,110	1.1	0.7
All Groups	390	389	678,713	681,684	7,545	8,073	1.1	1.2

(iv) *States, 1943 and 1944.* In making interstate comparisons of unemployment percentages, allowances must be made for the circumstance that the industries included in the returns from trade unions are not quite identical in the various States, and that for some States the returns are a more representative sample than for others. The State percentages shown below, therefore, should not be read as indicating the relative degree of unemployment amongst unionists in the individual States but as an indication of the trend of unemployment as reported by the trade unions.

UNEMPLOYMENT OF MEMBERS OF TRADE UNIONS, 1943 and 1944.

State.	Unions Reporting.				Unemployed.			
	Number.		Members.		Number.		Percentage.	
	1943.	1944.	1943.	1944.	1943.	1944.	1943.	1944.
New South Wales	112	111	291,827	291,683	3,951	4,608	1.4	1.6
Victoria	77	77	196,784	194,387	1,356	1,634	0.7	0.8
Queensland	45	45	81,901	86,751	976	628	1.2	0.7
South Australia	55	55	61,830	60,210	585	605	0.9	1.0
Western Australia	67	67	32,589	33,655	504	485	1.5	1.4
Tasmania	34	34	13,782	14,998	173	113	1.3	0.7
Australia	390	389	678,713	681,684	7,545	8,073	1.1	1.2

(v) *States, 1938 to 1944.* The following table gives the percentages in each State from 1938 to 1944 :—

UNEMPLOYMENT OF MEMBERS OF TRADE UNIONS : PERCENTAGES.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	%	%	%	%	%	%	%
1938 Year	9.9	8.6	6.4	8.3	5.7	7.9	8.7
1939 " "	11.0	10.4	5.9	9.3	7.1	8.1	9.7
1940 " "	11.0	5.8	5.5	7.0	5.6	5.2	8.0
1941 " "	4.7	2.5	4.5	2.7	2.9	3.3	3.7
1942 " "	1.8	1.2	2.3	1.1	1.6	0.8	1.6
1943 " "	1.4	0.7	1.2	0.9	1.5	1.3	1.1
1944 " "	1.6	0.8	0.7	1.0	1.5	0.8	1.2
1939 March Quarter	10.6	10.8	6.1	9.3	7.3	7.6	9.6
June " "	10.6	10.4	5.7	9.5	6.2	9.4	9.5
Sept. " "	11.6	11.2	5.8	9.4	8.2	8.3	10.2
Dec. " "	11.1	9.0	5.8	9.1	6.6	7.1	9.3
1942 March " "	2.0	1.4	3.2	1.0	1.7	0.7	1.8
June " "	1.9	1.2	2.6	1.3	1.7	0.6	1.7
Sept. " "	1.9	1.2	1.8	1.1	1.8	0.9	1.6
Dec. " "	1.5	0.9	1.6	0.9	1.3	0.8	1.3
1943 March " "	1.4	0.8	1.5	1.0	1.6	1.3	1.2
June " "	1.3	0.6	1.3	1.0	1.5	1.2	1.1
Sept. " "	1.3	0.7	1.1	0.9	1.7	1.2	1.1
Dec. " "	1.4	0.7	0.9	0.8	1.4	1.4	1.1
1944 March " "	1.3	0.7	0.8	0.9	1.5	0.7	1.0
June " "	1.9	0.9	0.7	1.3	1.9	0.7	1.4
Sept. " "	1.6	0.8	0.8	0.9	1.2	0.9	1.2
Dec. " "	1.6	0.9	0.6	0.9	1.2	0.7	1.2

3. *Special Legislation for the Relief of Unemployment.*—The position in regard to unemployment in Australia became so serious during 1930 that the usual methods of providing funds for relief works and sustenance were found to be inadequate. The cessation of loans, and the general depression in industry and business, due mainly to the decline in the prices of primary products, brought about an economic crisis in all States. The number of persons thrown out of work increased rapidly with little prospect of conditions improving during the immediate future. The Commonwealth and State Governments realized that special action was necessary to provide additional funds to relieve the distress caused by continued unemployment, as the money ordinarily available was not sufficient to meet the abnormal conditions.

Special grants to the States were made by the Commonwealth Government, while special legislation relating to the relief of unemployment was enacted in practically all the States. In New South Wales, Victoria and Queensland, the Acts provided for special taxation for the purpose of creating funds for relief works and sustenance for the unemployed. The funds necessary for the relief of unemployment in South Australia Western Australia and Tasmania were provided from Revenue.

Further references to the special legislation relating to unemployment, rates of tax and sustenance payments will be found in *Labour Reports*, Nos. 22 to 31.

§ 3. Industrial Disputes.

1. *General.*—Information with regard to the collection of particulars and the methods of tabulation of industrial disputes involving stoppage of work are given in previous issues of the Official Year Book, and is also given in the annual *Labour Reports* of this Bureau.

In annual tabulations particulars are included of all disputes which either commenced or were current during the year under review. As regards "number of disputes", "establishments involved", and "workpeople involved", therefore, duplication will

take place in respect of those disputes which started in and were unsettled at the end of a preceding year; the number involved will, however, be indicated in a footnote, to permit of due allowance being made in any calculations made from the tables.

2. Industrial Disputes Involving Stoppage of Work, Classified in Industrial Groups, 1943 and 1944.—The following tables give particulars of industrial disputes which either commenced or were current during 1943 and 1944, classified according to industrial groups.

INDUSTRIAL DISPUTES IN INDUSTRIAL GROUPS, 1943.

Class.	Industrial Group.	Number.	Estab-lish-ments In-volved.	Workpeople Involved.			Working Days Lost.	Esti-mated Loss in Wages.
				Directly.	In-directly.	Total.		
NEW SOUTH WALES.								
I.	Wood, Furniture, etc.	2	2	66	48	114	730	899
II.	Engineering, metal works, etc.	63	334	52,420	2,455	54,875	154,163	146,504
III.	Food, drink, etc.	23	1,509	10,411	143	10,554	56,839	55,247
IV.	Clothing, textiles, etc.	5	35	10,130	117	10,247	35,611	32,447
V.	Books, printing, etc.	1	1	533	..	533	5,330	5,323
VI.	Other manufacturing	18	22	4,066	459	4,525	24,478	24,389
VII.	Building	5	5	17,879	..	17,879	111,561	133,750
VIII.	(a) Coal-mining	544	628	145,864	2,401	148,265	325,352	478,855
	(b) Other mining quarries, etc.	3	3	896	..	896	11,264	17,400
IX.	Railway and tramway services	1	1	129	..	129	645	477
X.	Other land transport	4	4	1,136	..	1,136	1,192	1,194
XI.	Shipping, wharf labour, etc.	7	12	5,764	..	5,764	63,110	70,670
XII.	Pastoral, agricultural, etc.	1	200	750	..	750	750	600
XIII.	Domestic, hotels, etc.	2	2	145	..	145	3,848	1,760
XIV.	Miscellaneous	10	13	565	..	565	1,638	1,554
	Total	689	2,771	250,754	5,623	256,377	796,511	971,069
VICTORIA.								
II.	Engineering, metal works, etc.	13	19	4,572	..	4,572	30,630	25,671
III.	Food, drink, etc.	5	224	2,018	..	2,018	7,938	7,275
IV.	Clothing, textiles, etc.	2	2	99	150	249	2,907	2,073
V.	Books, printing, etc.	1	1	704	..	704	1,408	1,200
VI.	Other manufacturing	9	11	5,126	..	5,126	14,407	10,877
VII.	Building	5	5	664	67	731	8,757	9,669
VIII.	(a) Coal-mining	1	2	70	..	70	140	210
IX.	Railway and tramway services	2	2	1,225	..	1,225	1,225	1,034
XI.	Shipping, wharf labour, etc.	1	4	314	..	314	5,024	4,000
XII.	Pastoral, agricultural, etc.	1	800	4,250	..	4,250	4,250	3,400
	Total	40	1,070	19,042	217	19,259	76,686	65,409
QUEENSLAND.								
I.	Wood, furniture, etc.	1	1	2,000	..	2,000	4,000	5,000
II.	Engineering, metal works, etc.	5	5	1,306	..	1,306	16,757	17,260
III.	Food, drink, etc.	7	99	2,528	300	2,828	24,604	24,598
IV.	Clothing, textiles, etc.	1	1	303	..	303	454	235
VI.	Other manufacturing	1	3	748	..	748	7,480	8,443
VII.	Building	1	1	1,111	..	1,111	4,444	5,450
VIII.	(a) Coal-mining	2	2	51	2	53	213	318
IX.	Railway and tramway services	1	1	918	..	918	918	1,300
XI.	Shipping, wharf labour, etc.	1	1	25	..	25	25	25
	Total	20	114	8,990	302	9,292	58,895	62,629
SOUTH AUSTRALIA.								
II.	Engineering, metal works, etc.	14	17	3,252	66	3,318	5,966	4,569
IV.	Clothing, textiles, etc.	1	1	120	..	120	2,640	1,500
VI.	Other manufacturing	2	3	1,736	..	1,736	2,052	2,193
VII.	Building	2	2	255	..	255	485	475
IX.	Railway and tramway services	2	2	1,563	761	2,324	6,932	3,623
XI.	Shipping, wharf labour, etc.	1	1	35	..	35	35	45
XII.	Pastoral, agricultural, etc.	1	415	600	..	600	1,200	1,000
XIII.	Domestic, hotels, etc.	1	1	41	14	55	110	85
	Total	24	442	7,602	841	8,443	19,420	13,490
WESTERN AUSTRALIA.								
II.	Engineering, metal works, etc.	1	1	652	..	652	7,172	7,975
III.	Food, drink, etc.	2	74	227	..	227	1,757	1,994
VIII.	(a) Coal-mining	3	3	261	..	261	526	625
	(b) Other mining, quarries, etc.	1	1	19	950	969	28,500	29,500
IX.	Railway and tramway services	1	1	293	..	293	293	390
XI.	Shipping, wharf labour, etc.	1	1	130	..	130	130	183
XIV.	Miscellaneous	1	1	12	..	12	60	66
	Total	10	82	1,594	950	2,544	38,438	40,733

INDUSTRIAL DISPUTES IN INDUSTRIAL GROUPS, 1943—*continued.*

Class.	Industrial Group.	Number.	Estab-lish-ments In-volved.	Workpeople Involved.			Working Days Lost.	Esti-mated Loss in Wages
				Directly.	In-directly.	Total.		
TASMANIA.								
III.	Food, drink, etc.	1	1	13	..	13	26	£ 15
VI.	Other manufacturing	1	1	33	142	175	175	161
	Total	2	2	46	142	188	201	176
AUSTRALIA.								
I.	Wood, furniture, etc.	3	3	2,066	48	2,114	4,730	5,899
II.	Engineering, metal works, etc.	96	376	62,202	2,521	64,723	214,688	201,979
III.	Food, drink, etc.	38	1,907	15,197	443	15,640	91,164	89,129
IV.	Clothing, textiles, etc. . . .	9	39	10,652	267	10,919	41,612	36,255
V.	Books, printing, etc.	2	2	1,237	..	1,237	6,738	6,523
VI.	Other manufacturing	31	40	11,709	601	12,310	48,592	46,063
VII.	Building	13	13	19,909	67	19,976	125,247	149,344
VIII.	(a) Coal-mining	550	635	146,246	2,403	148,649	326,231	480,008
	(b) Other mining, quarries, etc.	4	4	915	950	1,865	39,764	46,900
IX.	Railway and tramway services	7	7	4,128	761	4,889	10,013	6,824
X.	Other land transport	4	4	1,136	..	1,136	1,192	1,194
XI.	Shipping, wharf labour, etc. .	11	19	6,268	..	6,268	68,324	74,923
XII.	Pastoral, agricultural, etc. .	3	1,415	5,600	..	5,600	6,200	5,000
XIII.	Domestic, hotels, etc. . . .	3	3	186	14	200	3,958	1,845
XIV.	Miscellaneous	11	14	577	..	577	1,698	1,620
	Total (a)	785	4,481	288,028	8,075	296,103	990,151	1,153,506

(a) The following disputes commenced in and were uncompleted at the end of the year 1942, and in respect of "Number of Disputes", and "Establishments Involved" are duplicated in the figures for 1943.

State.	Number of Disputes.	Establishments Involved.	Number of Workpeople Involved.		
			Directly.	Indirectly.	Total.
New South Wales	5	6	881	..	881
Victoria	1	1	448	..	448

INDUSTRIAL DISPUTES IN INDUSTRIAL GROUPS, 1944.

Class.	Industrial Group.	Number.	Establishments Involved.	Workpeople Involved.			Working Days Lost.	Estimated Loss in Wages.
				Directly.	Indirectly.	Total.		
NEW SOUTH WALES.								
II.	Engineering, metal works, etc.	57	60	17,495	1,647	19,142	77,556	£ 81,300
III.	Food, drink, etc.	23	23	7,528	546	8,074	24,641	21,413
IV.	Clothing, textiles, etc. . . .	3	3	1,896	67	1,963	2,083	1,997
V.	Books, printing, etc.	2	5	2,379	..	2,379	19,193	20,011
VI.	Other manufacturing	21	26	7,380	206	7,586	20,028	20,808
VII.	Building	3	3	218	..	218	631	711
VIII.	(a) Coal-mining	648	693	151,792	3,973	155,765	378,591	560,757
	(b) Other mining quarries, etc.	5	34	4,400	975	5,375	15,378	18,609
IX.	Railway and tramway services	9	9	521	..	521	703	660
X.	Other land transport	4	4	10,366	..	10,366	10,422	10,830
XI.	Shipping, wharf labour, etc. .	10	10	3,686	..	3,686	8,479	10,547
XII.	Pastoral, agricultural, etc. .	2	4	114	20	134	406	650
XIII.	Domestic, hotels, etc. . . .	5	18	2,024	741	2,765	10,019	4,039
XIV.	Miscellaneous	9	29	3,208	..	3,208	7,175	8,048
	Total	801	921	213,007	8,175	221,182	575,305	760,380
VICTORIA.								
I.	Wood, furniture, etc.	1	1	45	..	45	90	£ 100
II.	Engineering, metal works, etc.	15	18	2,844	150	2,994	19,872	24,043
III.	Food, drinks, etc.	13	23	4,229	84	4,313	22,508	21,222
IV.	Clothing, textiles, etc. . . .	7	18	848	..	848	9,474	6,885
VI.	Other manufacturing	9	9	1,473	50	1,523	5,416	5,275
VII.	Building	5	10	557	10	567	6,506	6,687
IX.	Railway and tramway services	2	2	2,752	..	2,752	2,752	3,011
XIV.	Miscellaneous	1	8	600	..	600	6,000	6,000
	Total	53	89	13,348	294	13,642	72,618	73,223

INDUSTRIAL DISPUTES IN INDUSTRIAL GROUPS, 1944—continued.

Class.	Industrial Group.	Num-ber.	Estab-lish-ments In-volved.	Workpeople Involved.			Working Days Lost.	Esti-mated Loss in Wages.
				Directly.	In-directly.	Total.		
QUEENSLAND.								
II.	Engineering, metal works, etc.	3	3	763	..	763	4,470	£ 5,520
III.	Food, drinks, etc.	8	10	4,604	..	4,604	36,819	35,695
IV.	Clothing, textiles, etc.	2	6	507	..	507	776	500
VII.	Building ..	2	2	589	..	589	13,347	14,931
VIII.	(a) Coal-mining ..	6	9	1,923	..	1,923	7,195	10,476
XIV.	Miscellaneous ..	2	2	107	..	107	477	279
	Total ..	23	32	8,493	..	8,493	63,084	67,401
SOUTH AUSTRALIA.								
I.	Wood, furniture, etc.	1	1	25	..	25	37	21
II.	Engineering, metal works, etc.	12	12	7,196	..	7,196	52,046	56,219
III.	Food, drinks, etc.	4	45	1,258	..	1,258	3,300	3,245
VI.	Other manufacturing ..	4	4	590	43	633	1,107	1,227
VII.	Building ..	1	1	120	..	120	720	800
VIII.	(a) Coal-mining ..	1	1	52	..	52	104	122
	(b) Other mining, quarries, etc.	1	1	59	..	59	59	40
IX.	Railway and tramway services	4	4	8,767	3,187	11,954	17,648	18,285
XI.	Shipping, wharf labour, etc.	1	1	57	..	57	57	61
XIII.	Domestic, hotels, etc.	1	1	126	..	126	1,008	594
	Total ..	30	71	18,250	3,230	21,480	76,086	80,614
WESTERN AUSTRALIA.								
I.	Wood, furniture, etc.	2	9	444	..	444	1,484	1,445
II.	Engineering, metal works, etc.	5	24	396	..	396	644	651
VI.	Other manufacturing ..	5	17	549	17	566	3,662	3,879
VIII.	(a) Coal-mining ..	5	5	1,098	..	1,098	3,692	5,005
	(b) Other mining, quarries, etc.	1	1	19	950	969	45,000	46,000
IX.	Railway and tramway services	5	5	2,607	2,900	5,507	8,210	5,158
XI.	Shipping, wharf labour, etc.	4	11	1,516	..	1,516	26,414	30,623
XIV.	Miscellaneous ..	3	3	532	..	532	878	840
	Total ..	30	75	7,161	3,867	11,028	89,984	93,601
TASMANIA.								
I.	Wood, furniture, etc.	1	1	18	..	18	198	200
II.	Engineering, metal works, etc.	1	1	352	..	352	35,200	36,000
VIII.	(b) Other mining, quarries, etc.	1	1	49	..	49	49	60
XI.	Shipping, wharf labour, etc.	1	1	114	..	114	228	250
	Total ..	4	4	533	..	533	35,675	36,510
AUSTRALIA.								
I.	Wood, furniture, etc.	5	12	532	..	532	1,809	1,766
II.	Engineering, metal works, etc.	93	118	29,046	1,797	30,843	189,788	203,733
III.	Food, drinks, etc.	48	101	17,619	630	18,249	87,268	81,575
IV.	Clothing, textiles, etc.	12	27	3,251	67	3,318	12,333	9,382
V.	Books, printing, etc.	2	5	2,379	..	2,379	19,193	20,011
VI.	Other manufacturing ..	39	56	9,992	316	10,308	30,213	31,189
VII.	Building ..	11	16	1,484	10	1,494	21,204	23,129
VIII.	(a) Coal-mining ..	660	708	154,865	3,973	158,838	389,582	576,360
	(b) Other mining, quarries, etc.	8	37	4,527	1,925	6,452	60,486	64,709
IX.	Railway and tramway services	20	20	14,467	6,087	20,734	29,313	27,114
X.	Other land transport ..	4	4	10,366	..	10,366	10,422	10,830
XI.	Shipping, wharf labour, etc.	16	23	5,373	..	5,373	35,578	41,481
XII.	Pastoral, agricultural, etc.	2	4	114	20	134	406	650
XIII.	Domestic, hotels, etc.	6	19	2,150	741	2,891	11,027	4,633
XIV.	Miscellaneous ..	15	42	4,447	..	4,447	14,530	15,167
	Total (a) ..	941	1,192	260,792	15,566	276,358	912,752	1,111,729

(a) The following disputes commenced in, and were uncompleted at the end of the year 1943, and in respect of "Number of Disputes" and "Establishments Involved" are duplicated in the figures for 1944.

State.	Number of Disputes.	Establishments Involved.	Number of Workpeople Involved.		
			Directly.	Indirectly.	Total.
New South Wales ..	I	I	149	..	149
Western Australia ..	I	I	19	950	969

3. Industrial Disputes, Australia, 1938 to 1944.—The following table gives particulars of the number of industrial disputes, the number of workpeople involved, and the losses in working days and wages caused by disputes which either commenced or were current during each of the years 1938 to 1944 classified according to industrial groups.

Satisfactory comparisons of the frequency of industrial disputes in classified industries can be made only after omitting those which are recorded for coal-mining (Group VIII.(a)). For 1913 the proportion of disputes in the mining industry represented practically 50 per cent. of the total number recorded. In subsequent years the proportion remained high, ranging from 45 per cent. in 1917 and 1918 to as much as 82 in 1940. For the year 1944 these disputes represented 70 per cent. of the total for that year. In the past five years working days lost through dislocations involving workpeople engaged in coal-mining amounted to 2,540,365, representing 53 per cent. of the total loss of working days during the period :—

INDUSTRIAL DISPUTES : AUSTRALIA.

Year.	Manu- facturing. (Groups I. to VI.)	Building. (Group VII.)	Mining (Group VIII.)		Transport, Land and Sea. (Groups IX. to XI.)	Miscel- laneous. (Groups XII. to XIV.)	ALL GROUPS.
			Coal- mining.	Other Mining, etc.			
NUMBER.							
1938	43	3	314	6	4	6	376
1939	20	3	362	4	6	21	416
1940	36	10	286	3	10	5	350
1941	135	12	395	4	18	3	567
1942	120	13	447	1	12	9	602
1943	179	13	550	4	22	17	785
1944	199	11	660	8	40	23	941

WORKPEOPLE INVOLVED.

1938	12,822	4,270	122,379	1,820	1,870	793	143,954
1939	8,818	57	137,792	900	2,017	3,246	152,830
1940	15,986	2,447	167,840	492	3,514	2,318	192,597
1941	96,999	2,294	141,235	2,266	5,188	125	248,107
1942	47,689	1,900	112,031	306	6,468	869	169,263
1943	106,943	19,976	148,649	1,865	12,293	6,377	296,103
1944	65,629	1,494	158,838	6,432	36,473	7,472	276,358

WORKING DAYS LOST.

1938	294,062	34,520	928,860	20,224	59,068	1,260	1,337,994
1939	108,709	563	291,067	3,805	35,016	19,994	459,154
1940	81,799	32,746	1,371,382	5,068	10,705	5,552	1,507,252
1941	647,730	18,123	275,605	12,882	29,711	123	984,174
1942	187,049	6,450	177,565	1,224	3,924	1,983	378,195
1943	407,524	125,247	326,231	39,764	79,529	11,856	990,151
1944	340,604	21,204	389,582	60,486	74,913	25,963	912,752

ESTIMATED LOSS IN WAGES.

1938	£ 239,222	£ 31,847	£ 973,659	£ 23,103	£ 35,062	£ 927	£ 1,303,820
1939	83,540	424	335,033	4,728	22,114	9,877	455,716
1940	75,108	27,491	1,595,234	6,146	8,333	3,809	1,716,121
1941	616,621	20,238	320,945	15,381	26,795	122	1,000,102
1942	179,880	7,193	260,868	1,400	5,289	1,460	456,090
1943	585,848	149,344	480,008	46,900	82,941	8,465	1,153,506
1944	347,056	23,129	576,360	64,709	79,425	20,450	1,111,729

4. Summary of Disputes (involving Stoppage of Work), 1938 to 1944.—The following table gives particulars of the number of industrial disputes in each State in the years 1938 to 1944 together with the workpeople involved, the working days lost, and the estimated loss in wages :—

INDUSTRIAL DISPUTES : SUMMARY.

State or Territory.	Year.	Number.	Establishments Involved.	Workpeople Involved.			Working Days Lost.	Estimated Loss in Wages.
				Directly.	Indirectly.	Total.		
£								
New South Wales ..	1938	340	483	116,378	8,160	124,538	1,029,427	1,012,915
	1939	386	460	139,301	9,230	148,531	410,183	419,330
	1940	313	680	161,766	12,238	174,004	1,238,161	1,430,416
	1941	513	773	213,440	6,671	220,111	778,079	809,879
	1942	552	573	148,203	2,892	151,095	320,135	401,613
	1943	680	2,771	250,754	5,623	256,377	796,511	971,069
	1944	801	921	213,007	8,175	221,182	575,305	760,380
Victoria ..	1938	19	38	7,678	2,612	10,290	104,336	87,595
	1939	10	10	1,989	180	2,169	27,313	19,946
	1940	19	44	8,279	385	8,664	108,035	101,326
	1941	22	595	19,806	311	20,117	139,167	121,193
	1942	20	26	11,979	140	12,119	35,658	31,009
	1943	40	1,070	19,042	217	19,259	76,686	65,409
	1944	53	89	13,348	294	13,642	72,618	73,223
Queensland ..	1938	5	9	2,657	..	2,657	87,539	87,379
	1939	5	6	373	2	375	1,870	1,753
	1940	4	8	3,013	14	3,027	131,628	157,673
	1941	17	113	3,392	280	3,672	47,826	48,574
	1942	6	6	370	52	422	2,702	2,145
	1943	20	114	8,990	302	9,292	58,895	62,629
	1944	23	32	8,493	..	8,493	63,084	67,401
South Australia ..	1938	2	2	73	52	125	249	223
	1939	2	2	170	5	175	1,880	1,416
	1940	5	5	2,745	21	2,766	9,506	7,632
	1941	11	51	3,704	..	3,704	17,656	18,760
	1942	13	52	3,617	..	3,617	10,494	11,056
	1943	24	442	7,602	841	8,443	19,420	13,490
	1944	30	71	18,250	3,230	21,480	76,086	80,614
Western Australia ..	1938	7	21	2,994	650	3,644	43,768	43,278
	1939	7	7	1,108	145	1,253	14,100	9,578
	1940	4	153	2,735	288	3,023	7,387	6,396
	1941	3	7	303	..	303	846	931
	1942	8	85	1,797	12	1,809	8,855	9,872
	1943	10	82	1,594	950	2,544	38,438	40,733
	1944	30	75	7,161	3,867	11,028	89,984	93,601
Tasmania ..	1938	2	4	2,200	..	2,200	72,175	72,030
	1939	4	4	53	..	53	166	93
	1940	2	5	216	12	228	10,466	10,641
	1941	..	..	..	..	..	..	..
	1942	2	2	51	..	51	51	45
	1943	2	2	46	142	188	201	176
	1944	4	4	533	..	533	35,675	36,510
Northern Territory ..	1938	1	1	500	..	500	500	400
	1939	2	16	234	40	274	3,642	3,600
	1940	3	4	185	700	885	2,069	2,037
	1941	1	1	200	..	200	600	825
	1942	1	1	150	..	150	300	350
	1943	..	..	..	..	..	..	..
	1944	..	..	..	..	..	..	..
Australia ..	1938	376	558	132,480	11,474	143,954	1,337,994	1,303,820
	1939	416	505	143,228	9,602	152,830	459,154	455,716
	1940	350	899	178,939	13,658	192,597	1,507,252	1,716,121
	1941	567	1,540	240,845	7,262	248,107	984,174	1,000,102
	1942	602	745	166,167	3,096	169,263	378,195	456,090
	1943	785	4,481	288,028	8,075	296,103	990,151	1,153,506
	1944	941	1,192	260,792	15,566	276,358	912,752	1,111,729

Detailed information in regard to the disputes during the years 1938 to 1944 and previous years is given in the *Labour Reports* issued by this Bureau.

5. Duration of Industrial Disputes, 1943 and 1944.—The following table gives particulars of industrial disputes during 1943 and 1944 according to certain adopted limits of duration :—

INDUSTRIAL DISPUTES : DURATION, AUSTRALIA, 1943 and 1944.

Limits of Duration.	Number.	Workpeople Involved.			Working Days Lost.	Estimated Loss in Wages.
		Directly.	Indirectly.	Total.		
1943.						
						£
1 day and less	461	167,539	1,855	169,394	168,220	211,654
2 days and more than 1 day	107	32,337	312	32,649	64,278	78,876
3 " " " 2 days	59	18,445	1,606	20,051	59,864	73,869
Over 3 days and less than 1 week (6 days)	64	28,159	2,507	30,666	137,010	175,832
1 week and less than 2 weeks	52	15,041	419	15,460	130,791	141,057
2 weeks " " 4 weeks	30	23,767	403	24,170	264,312	290,058
4 " " " 8 weeks	7	1,330	23	1,353	41,369	52,675
8 weeks and over	5	1,410	950	2,360	124,307	129,485
Total	785	288,028	8,075	296,103	990,151	1,153,506

1944.						
1 day and less	524	136,497	9,856	146,353	143,859	£ 170,389
2 days and more than 1 day	136	39,276	1,994	41,270	77,704	97,995
3 " " " 2 days	67	21,949	772	22,721	67,140	86,073
Over 3 days and less than 1 week (6 days)	87	23,961	6	23,967	105,599	142,327
1 week and less than 2 weeks	90	27,819	826	28,645	250,148	282,699
2 weeks " " 4 weeks	29	10,298	1,137	11,435	195,609	253,177
4 " " " 8 weeks	7	973	25	998	27,693	33,069
8 weeks and over	1	19	950	969	45,000	46,000
Total	941	260,792	15,566	276,358	912,752	1,111,729

6. Causes of Industrial Disputes, 1913 to 1944.—The following table shows the principal causes of the industrial disputes which occurred in 1913, 1938 and 1940 to 1944 :—

INDUSTRIAL DISPUTES : CAUSES, AUSTRALIA.

Causes of Dispute.	1913.	1938.	1940.	1941.	1942.	1943.	1944.
NUMBER.							
1. Wages—							
(a) For increase	42	10	16	46	8	27	18
(b) Against decrease	4	2	1	4	2	1	1
(c) Other wage questions	31	67	54	102	107	132	134
2. Hours of Labour—							
(a) For reduction	3	2	..	2	1	5	1
(b) Other disputes re hours	7	1	20	10	8	11	16
3. Trade Unionism—							
(a) Against employment of non-unionists	8	5	2	8	9	6	13
(b) Other union questions	5	43	34	28	24	30	32
4. Employment of particular Classes or Persons	44	106	80	154	139	194	230
5. Working Conditions	51	73	46	81	132	200	266
6. Sympathetic	5	4	7	15	14	21	19
7. Other Causes	8	63	90	117	158	158	211
Total	208	376	350	567	602	785	941

INDUSTRIAL DISPUTES: CAUSES, AUSTRALIA—*continued.*

Causes of Dispute.	1913.	1918.	1940.	1941.	1942.	1943.	1944.
WORKPEOPLE INVOLVED.							
1. Wages—							
(a) For increase	8,633	967	4,242	12,157	2,150	10,441	4,440
(b) Against decrease ..	563	914	296	848	957	44	300
(c) Other wage questions ..	7,160	21,399	17,841	32,403	32,025	52,055	33,566
2. Hours of Labour—							
(a) For reduction	460	4,050	..	1,432	85	6,905	24
(b) Other disputes re hours ..	1,819	36	7,635	3,720	1,630	5,430	7,912
3. Trade Unionism—							
(a) Against employment of non-unionists ..	5,370	1,659	254	912	1,797	2,944	3,788
(b) Other union questions ..	1,418	13,241	10,314	10,392	5,302	10,799	7,091
4. Employment of particular Classes or Persons	11,370	30,020	28,955	43,889	41,402	60,391	59,576
5. Working Conditions	10,785	40,206	14,614	30,951	29,908	45,698	73,733
6. Sympathetic	947	1,260	4,973	10,855	7,977	11,593	11,118
7. Other Causes	1,758	30,202	103,473	101,448	46,030	89,803	74,810
Total	50,283	143,954	192,597	248,107	169,263	296,103	276,358

WORKING DAYS LOST.

1. Wages—							
(a) For increase	100,069	32,390	25,590	106,518	7,403	44,079	14,630
(b) Against decrease ..	9,438	7,340	592	1,368	13,991	44	450
(c) Other wage questions ..	78,183	116,468	92,473	111,258	98,669	154,339	124,256
2. Hours of Labour—							
(a) For reduction	2,774	34,300	..	4,232	85	13,248	72
(b) Other disputes re hours ..	15,111	900	20,977	12,781	2,607	27,351	30,444
3. Trade Unionism—							
(a) Against employment of non-unionists ..	91,002	2,906	1,866	5,852	5,583	49,398	10,118
(b) Other union questions ..	32,388	80,280	15,553	62,870	9,179	43,851	29,203
4. Employment of particular Classes or Persons	191,723	104,454	105,166	112,360	98,658	274,102	179,521
5. Working Conditions	73,562	744,147	33,709	122,279	66,348	96,171	215,546
6. Sympathetic	24,066	4,440	16,196	18,830	12,593	16,436	81,533
7. Other Causes	5,212	210,369	1,195,130	425,826	63,079	271,132	226,979
Total	623,528	1,337,994	1,507,252	984,174	378,195	990,151	912,752

The main causes of industrial disputes are "Wage" questions, "Working Conditions," and "Employment of Particular Classes or Persons." In each of the years 1913 to 1925 with the exception of 1922, the number of dislocations concerning "Wages" exceeded those caused by any other question, and varied between a minimum proportion of 19 per cent. in 1942 and a maximum of 45 per cent. in 1916. Since 1925 the number of disputes concerning "Wages" has averaged about 20 per cent. of the total number for each year. The majority of the dislocations of work classified under the heading, "Employment of Particular Classes or Persons," are stoppages for the purpose of protesting against the dismissal of certain employees, who, in the opinion of their fellow-workers, have been unfairly treated or victimized. This class of dispute occurs very frequently in the coal-mining industry, and has been the principal cause of industrial disturbance in most of the years since 1925, averaging about 30 per cent. of the total number for each year during that period. The number of disputes over "Trade Union" questions has averaged below 10 per cent. of the total number of disputes during the years under review. Stoppages of work concerning "Hours of Labour" increased during 1926 and 1927, but have been relatively unimportant during recent years.

The number of disputes concerning "Wages" in 1944 was 153 representing 16 per cent. of the total. Stoppages concerning "Employment of Particular Classes or Persons" numbered 230, or 24 per cent., those concerning "Working Conditions" 266 or 28 per cent. Disputes classified under these three headings numbered 649, or 68 per cent. of the total dislocations during the year.

7. Results of Industrial Disputes.—The results of industrial disputes during each of the last seven years are given in the following table:—

INDUSTRIAL DISPUTES CLASSIFIED ACCORDING TO RESULTS : AUSTRALIA.

Year.	Number.				Workpeople Involved.				Working Days Lost.			
	In Favour of Workpeople.	In Favour of Employer.	Compromise.	Indefinite.	In Favour of Workpeople.	In Favour of Employer.	Compromise.	Indefinite.	In Favour of Workpeople.	In Favour of Employer.	Compromise.	Indefinite.
1938..	94	229	18	34	24,953	75,100	6,037	36,201	90,375	149,959	45,205	1,022,521
1939..	75	302	19	20	22,517	117,445	6,233	6,635	104,192	256,602	43,569	54,791
1940..	99	213	12	24	36,303	128,874	1,800	25,092	162,662	443,682	6,655	885,941
1941..	225	287	24	20	74,856	146,031	11,438	15,062	271,539	522,837	93,424	94,404
1942..	166	393	9	28	48,848	107,656	2,517	8,913	114,540	201,381	13,041	36,973
1943..	202	497	10	74	72,116	190,668	4,481	27,720	279,440	569,522	36,966	74,382
1944(a)	260	603	3	172	73,043	171,347	1,234	28,950	315,216	413,606	11,043	151,471

(a) The following disputes which were incomplete at 31st December, 1944, should be added to the figures for 1944 to effect a balance with those published in the preceding table:—Victoria, 1 dispute, 24 workpeople, 576 working days lost, South Australia, 1 dispute, 20 workpeople, 320 working days lost; Western Australia, 1 dispute, 1,140 workpeople, 20,520 working days lost.

8. Methods of Settlement.—The following table gives a classification of the methods of settlement according to the adopted schedule:—

INDUSTRIAL DISPUTES : METHODS OF SETTLEMENT, AUSTRALIA.

Methods of Settlement.	1913.	1938.	1940.	1941.	1942.	1943.	1944.(a)
NUMBER.							
Negotiation—							
Direct between employers and employees or their representatives	119	245	192	245	233	356	387
By intervention or assistance of distinctive third party—not under Commonwealth or State Industrial Act	17	17	12	22	117	100	130
Under State Industrial Act—							
By intervention, assistance, or compulsory conference	19	3	6	9	9	13	19
By reference to Board or Court	22	9	7	56	16	30	25
Under Commonwealth Conciliation and Arbitration Act—							
By intervention, assistance, or compulsory conference	4	9	25	57	43	38	72
By filling places of workpeople on strike or locked out	13	..	..	3	..	..	..
By closing-down establishment permanently	1	..	1	..	..	..	1
By other methods	13	92	105	173	178	246	304
Total	208	375	348	565	596	783	938
WORKPEOPLE INVOLVED.							
Negotiation—							
Direct between employers and employees or their representatives	23,357	70,481	55,084	72,865	57,556	101,169	87,122
By intervention or assistance of distinctive third party—not under Commonwealth or State Industrial Act	3,172	4,845	3,520	5,757	42,072	43,556	34,942
Under State Industrial Act—							
By intervention, assistance, or compulsory conference	6,505	1,844	2,766	3,336	2,259	4,583	12,684
By reference to Board or Court	12,774	5,519	2,617	21,788	4,642	15,096	10,970
Under Commonwealth Conciliation and Arbitration Act—							
By intervention, assistance, or compulsory conference	659	21,289	35,203	55,019	14,873	12,251	27,966
By filling places of workpeople on strike or locked out	658	..	..	340	..	..	..
By closing-down establishment permanently	170	..	13	..	..	..	19
By other methods	2,988	38,313	92,866	88,282	40,532	118,330	101,471
Total	50,283	142,291	192,069	247,387	167,934	294,985	275,174

(a) See note to previous table.

INDUSTRIAL DISPUTES: METHODS OF SETTLEMENT, AUSTRALIA.—*continued.*

Methods of Settlement.	1913.	1938.	1940.	1941.	1942.	1943.	1944.(a)
WORKING DAYS LOST.							
Negotiation—							
Direct between employers and employees or their representatives	94,400	203,175	152,848	159,347	98,650	244,920	176,569
By intervention or assistance of distinctive third party—not under Commonwealth or State Industrial Act	26,335	64,220	21,018	42,563	115,727	246,334	150,431
Under State Industrial Act—							
By intervention, assistance, or compulsory conference	187,871	11,796	8,665	14,259	10,112	19,430	46,132
By reference to Board or Court	221,769	326,381	30,420	107,051	18,761	82,112	78,431
Under Commonwealth Conciliation and Arbitration Act—							
By intervention, assistance, or compulsory conference	2,105	629,075	1,032,801	510,277	69,441	53,330	197,599
By filling places of workpeople on strike or locked out	14,139	..	..	5,248	..	..	..
By closing-down establishment permanently	20,400	..	377	..	..	..	209
By other methods	56,509	72,913	252,811	143,519	53,244	314,184	241,965
Total	623,528	1,308,060	1,498,940	982,261	365,935	960,316	891,336

(a) See note to previous table.

The majority of disputes are settled by direct negotiations between employers and employees, the proportion so settled since 1913 ranging between 43 per cent. in 1925 and 78 per cent. in 1937. Of the 938 disputes settled during 1944, 387 or 41 per cent. were settled by this method. The proportion of dislocations settled by compulsory conferences or the intervention and assistance of officials under State or Commonwealth Arbitration Acts has varied considerably during the period under review, ranging between 3 per cent. in 1915 and 22 per cent. in 1913. The proportion in 1944 was 12 per cent. In connexion with the comparatively large number of disputes which are classified as having been settled "By other methods," many stoppages of work occur each year, principally at collieries, but the cause of such stoppages is not officially known to the employers or their representatives. Such stoppages usually last for one day, and work is resumed without negotiations for a settlement of the trouble.

F. ASSOCIATIONS.

§ 1. Labour Organizations.

1. *Registration.*—(i) *Under Trade Union Acts.* The benefits obtained by registering trade unions under the Trade Union Acts in force in the various States are not considered of much value, consequently the statistics of registered trade unions of employees do not accurately represent the position of unionism. Further, the returns for past years are so defective as to be practically valueless, inasmuch as no reliable indication is afforded of the numerical and financial position of the unions. Some of the registered unions fail to supply returns; this non-supply may lead to cancellation of the registration. Others have obtained the cancellation of their certificates of registration, the apparent reason being that they proposed to register under the Commonwealth Conciliation and Arbitration Act or a State Arbitration Act. In Queensland, some of the largest labour unions withdrew from registration during 1911, mainly on account of the necessity for closer restriction of their objects as set forth in their rules, consequent on legal decisions affecting trade unions. In Victoria and in South Australia very few of the existing unions are registered under the Trade Union Acts. It will be seen, therefore, that the available information under this heading is too meagre for statistical purposes.

(ii) *Under Industrial Arbitration Acts.* Information with regard to registrations of employers' associations and trade unions under the various State Industrial Arbitration Acts will be found in previous issues of the Official Year Book. The latest information available as to registrations is as follows:—New South Wales, 202 industrial unions of employers and 159 industrial unions of employees, the membership not being available in either case; Queensland, 20 industrial unions of employers with approximately 15,000 members, and 77 industrial unions of employees with approximately 199,000 members;

South Australia, 34 organizations of employees with 51,000 members; Western Australia, 34 organizations of employers with 804 members, and 135 organizations of employees with 55,000 members. There is no provision in the South Australian Industrial Acts for the registration of organizations of employers, and in Victoria and Tasmania, where Wages Board systems of wage fixation are in operation, organizations of employers and employees are not required to register. Registration under Commonwealth legislation began in 1906. In that and the four years following, there was but one union of employers; another was registered in 1911. The unions of employees registered in 1906 were 20, with 41,413 members. On 31st December, 1944, there were 40 registered organizations of employers and 153 registered organizations of employees, with a total estimated membership for the latter of approximately 1,092,000.

2. **Particulars regarding Trade Unions.**—(i) *Types.* The trade unions in Australia are very diverse in character, and range from the small independent association to the large interstate organization, which, in its turn, may be merely a branch of a British or International union. Broadly speaking, there are four distinct classes of labour organizations:—(i) the local independent; (ii) the State; (iii) the interstate; and (iv) the Australasian or International; but a number of variations occur from each of these classes. The leading characteristics of each of these types are briefly outlined in *Labour Report* No. 2 (pp. 7-9) issued by this Bureau.

(ii) *Number and Membership.* As already stated, the figures for trade unions registered under the Acts do not represent the position of unionism in Australia. In 1912 the Labour and Industrial Branch of the Commonwealth Bureau of Census and Statistics was established and with the cordial co-operation of the officials of the labour organizations comprehensive figures relating to the development of organized labour are now available. The following table shows the position at the end of 1943 and 1944:—

TRADE UNIONS : BRANCHES AND MEMBERS, 1943 and 1944.

State or Territory.	Number of Separate Unions.		Number of Branches.		Number of Members.	
	1943.	1944.	1943.	1944.	1943.	1944.
New South Wales ..	192	189	592	591	498,169	508,832
Victoria ..	142	141	382	382	311,791	314,952
Queensland ..	113	112	308	307	194,225	192,085
South Australia ..	113	112	175	173	107,311	104,892
Western Australia ..	138	136	207	208	63,880	67,617
Tasmania ..	73	72	71	71	26,130	26,939
Northern Territory ..	4	4	..	..	1,406	1,406
Australian Capital Territory ..	15	15	1	1	1,951	2,055
Total ..	790	781	1,736	1,733	1,204,863	1,218,778
Australia ..	(a) 375	(a) 370	(b) 2,151	(b) 2,144	1,204,863	1,218,778

(a) Allowing for interstate duplication. The figures represent the number of distinct organizations and interstate groups of organizations in Australia—not the total number of organizations which are practically independent and self-governing. (b) See remarks below.

In the preceding table the number of separate unions in each State refers to the number of unions which are represented in each State, excluding branches therein, and each union is counted once only. Except in the last line, the number of branches indicates the number of branches of State head offices, which may, of course, themselves be branches of an interstate or larger organization. In taking the total number of separate unions in Australia (see last line but one), it is obvious that, in the case of interstate and similar unions, there will be duplication, since each such union is counted once in each State in which it has any branches. In the figures given in the last line, allowance has been made for this duplication. State branches of interstate or federated unions, as well as sub-branches within a State, are included under the heading "Branches" in the fourth and fifth columns—last line. The scheme of organization of these interstate or

federated unions varies greatly in character, and the number of separate Commonwealth unions does not, therefore, fairly represent the number of practically independent organizations in Australia. In some of these unions the State organizations are bound together under a system of unification and centralized control while in others the State units are practically independent and self-governing, the federal bond being loose and existing only for one or two specified purposes. At the end of 1944 there were, therefore, 370 distinct organizations and interstate groups of organizations in Australia, having 2,144 State branches and sub-branches, and a total of 1,218,778 members.

(iii) *Classification in Industrial Groups.* The following table shows the number of unions and members thereof in Australia at the end of each of the last four years compared with 1938. The number of unions specified refers to the number of different unions represented in each State and, while interstate or federated unions are counted once in each State in which they are represented, sub-branches within a State are not counted. Each year since 1939 the number of unions has decreased while membership has increased. Compared with 1939, membership in 1944 had increased by 33 per cent.

TRADE UNIONS : INDUSTRIAL GROUPS, AUSTRALIA.

Industrial Groups.	1938.	1941.	1942.	1943.	1944.
NUMBER OF UNIONS.					
Manufacturing—	(a)	(a)	(a)	(a)	(a)
I. Wood, Furniture, etc. . .	17 (4)	17 (5)	17 (5)	17 (5)	17 (5)
II. Engineering, Metal Works, etc. . .	63 (22)	63 (22)	62 (22)	61 (22)	61 (22)
III. Food, Drink, Tobacco, etc. . .	70 (34)	73 (34)	68 (33)	67 (33)	66 (30)
IV. Clothing, Hats, Boots, etc. . .	26 (12)	25 (12)	25 (12)	25 (12)	24 (12)
V. Books, Printing, etc. . .	14 (8)	14 (8)	14 (8)	14 (8)	14 (8)
VI. Other Manufacturing . . .	73 (36)	70 (35)	74 (37)	74 (37)	74 (37)
VII. Building . . .	49 (28)	49 (27)	49 (28)	48 (27)	48 (27)
VIII. Mining, Quarrying, etc. . .	15 (12)	19 (13)	18 (13)	18 (13)	18 (13)
IX. Railway and Tramway Services . .	50 (27)	50 (29)	50 (29)	51 (29)	51 (29)
X. Other Land Transport . . .	13 (6)	13 (6)	13 (6)	12 (5)	12 (5)
XI. Shipping, etc. . .	55 (20)	54 (19)	50 (19)	50 (19)	51 (19)
XII. Pastoral, Agricultural, etc. . .	9 (6)	8 (4)	9 (5)	9 (5)	9 (5)
XIII. Domestic, Hotels, etc. . .	20 (16)	18 (17)	18 (17)	19 (17)	19 (17)
XIV. Miscellaneous—					
(i) Banking, Insurance and Clerical . . .	32 (16)	33 (20)	33 (21)	33 (21)	33 (21)
(ii) Public Service . . .	148 (50)	142 (49)	142 (49)	142 (49)	142 (49)
(iii) Retail and Wholesale . . .	8 (8)	15 (8)	15 (8)	15 (8)	15 (8)
(iv) Municipal, Sewerage and Labouring . . .	16 (12)	20 (11)	20 (12)	20 (12)	20 (12)
(v) Other Miscellaneous . . .	123 (49)	124 (55)	115 (53)	115 (53)	107 (51)
Total . . .	801 (366)	807 (374)	792 (377)	790 (375)	781 (370)

NUMBER OF MEMBERS.

Manufacturing—					
I. Wood, Furniture, etc. . .	27,831	28,656	25,017	28,099	29,289
II. Engineering, Metal Works, etc. . .	94,228	153,911	199,698	206,791	209,105
III. Food, Drink, Tobacco, etc. . .	75,753	79,456	77,731	75,361	75,404
IV. Clothing, Hats, Boots, etc. . .	66,427	86,824	90,450	102,406	102,369
V. Books, Printing, etc. . .	21,661	24,049	23,574	23,810	25,127
VI. Other Manufacturing . . .	48,410	86,443	100,060	95,116	81,782
VII. Building . . .	47,953	58,812	69,843	71,645	64,780
VIII. Mining, Quarrying, etc. . .	43,429	47,048	44,462	41,956	40,282
IX. Railway and Tramway Services . .	104,523	111,022	120,672	121,044	124,763
X. Other Land Transport . . .	18,969	21,290	20,403	21,688	21,920
XI. Shipping, etc. . .	28,780	29,740	32,013	32,342	35,936
XII. Pastoral, Agricultural, etc. . .	38,424	43,242	45,742	37,730	36,168
XIII. Domestic, Hotels, etc. . .	12,835	20,381	20,073	22,167	28,382
XIV. Miscellaneous—					
(i) Banking, Insurance and Clerical . . .	37,639	48,451	56,176	65,577	76,645
(ii) Public Service . . .	86,797	102,552	115,954	127,341	122,750
(iii) Retail and Wholesale . . .	34,140	36,416	34,516	35,346	36,781
(iv) Municipal, Sewerage and Labouring . . .	45,126	45,083	47,533	45,205	46,428
(v) Other Miscellaneous . . .	52,233	51,404	52,491	51,239	57,867
Total . . .	885,158	1,075,680	1,182,417	1,204,863	1,218,778

(a) Allowing for interstate duplication.

(iv) *Trade Unions : Numbers of Male and Female Members and Percentage to Total Wage and Salary Earners, Australia.* Prior to 1939, the numbers of male and female wage and salary earners (including unemployed) aged 20 years and over were estimated by increasing the numbers of such persons enumerated at the 1933 Census in ratio to the annual increases in males and females aged 20 to 64 years. Similarly, for wage and salary earners (including unemployed) under 20 years the numbers of such persons at the 1933 Census were increased in ratio to the annual increases in males and females 15 to 19 years. Further, allowance was made for (a) increase in the proportion of females who are wage and salary earners and (b) youths who were without occupation but were not recorded in the wage-earning group at the 1933 Census. While the foregoing method of estimation would produce fairly accurate results during normal times, the drastically altered conditions of employment over the period of the recent war necessitated the adoption of more direct methods. For 1939 and subsequent years, therefore, data were obtained largely from the National Register of 1939, the Pay-Roll Tax returns commencing from July, 1941, and the Civilian Register of 1943. Since 1939 the estimated numbers of wage and salary earners include (a) wage earners enlisted in the Defence Forces and (b) persons who were "not gainfully occupied" before the outbreak of war but have since entered wage-earning employment, and (c) persons who have become wage or salary earners during the war but in normal times would be occupied in their own businesses.

The following table shows separately for males and females (a) the number of members of trade unions; (b) the estimated number of wage and salary earners of each sex 20 years of age and over in all professions, trades and occupations; and (c) the percentage of the former (a) on the latter (b) at the end of each year, 1941 to 1944 as compared with 1938. The estimated number of wage and salary earners includes all persons 20 years of age and over in receipt of wages or salary, as well as those unemployed, and therefore embraces a large number of adults who are not eligible for membership of any trade union, such as certain persons employed in professional occupations, as well as others who, while eligible for membership so far as the nature of their trade or occupation is concerned, do not reside in a locality which is covered by any union devoted to their particular trade or occupation. Moreover, the age at which persons are eligible for membership varies in different unions. The census results are classified in quinquennial age groups, and age 20 years is taken as approximating to the age of admission to membership. A line has also been added showing the estimated numbers of "junior" workers under 20 years of age.

TRADE UNIONS : NUMBER OF MALE AND FEMALE MEMBERS AND PERCENTAGE TO TOTAL WAGE AND SALARY EARNERS, AUSTRALIA.

Particulars.	1938.	1941.(a)	1942.(a)	1943.(a)	1944.(a)
MALES.					
Estimated No. of Adult Wage and Salary Earners (20 years of age and over) ..	1,488,200	1,671,500	1,727,600	1,749,700	1,707,400
No. of Members of Unions ..	748,749	886,648	943,555	935,997	944,777
Percentage of Members on Estimated Number of Adult Wage and Salary Earners ..	50.3	53.0	54.6	53.5	55.3
Junior Wage and Salary Earners (under 20)	273,200	278,500	277,400	275,300	272,600
FEMALES.					
Estimated No. of Adult Wage and Salary Earners (20 years of age and over) ..	410,900	484,000	520,000	546,000	541,000
No. of Members of Unions ..	136,409	189,032	238,862	268,866	274,001
Percentage of Members on Estimated Number of Adult Wage and Salary Earners ..	33.2	39.1	45.9	49.2	50.6
Junior Wage and Salary Earners (under 20)	183,900	209,000	220,000	227,000	222,000

(a) Includes wage earners enlisted in the defence forces.

TRADE UNIONS: NUMBER OF MALE AND FEMALE MEMBERS AND PERCENTAGE TO TOTAL WAGE AND SALARY EARNERS, AUSTRALIA—continued.

Particulars.	1938.	1941.(a)	1942.(a)	1943.(a)	1944.(a)
TOTAL.					
Estimated No. of Adult Wage and Salary Earners (20 years of age and over) ..	1,899,100	2,155,500	2,247,600	2,295,700	2,248,400
No. of Members of Unions ..	885,158	1,075,680	1,182,417	1,204,863	1,218,778
Percentage of Members on Estimated Number of Adult Wage and Salary Earners ..	46.6	49.9	52.6	52.5	54.2
Junior Wage and Salary Earners (under 20)	457,100	487,500	497,400	502,300	494,600

(a) Includes wage earners enlisted in the defence forces.

(v) *Interstate or Federated Unions.* The following table gives particulars as to the number and membership of interstate or federated unions in 1943 and 1944 :—

INTERSTATE OR FEDERATED UNIONS: AUSTRALIA, 1943 and 1944.

Particulars.	Unions Operating in—					Total.
	2 States.	3 States.	4 States.	5 States.	6 States. (a)	
1943.						
Number of Unions ..	18	12	17	24	46	117
„ „ Members ..	31,889	37,366	158,248	299,685	534,625	1,061,813
1944.						
Number of Unions ..	16	16	15	24	49	120
„ „ Members ..	29,415	46,870	122,975	302,897	561,562	1,063,719

(a) Certain unions in this group have, in addition to branches in each of the six States, branches in the Northern Territory and the Australian Capital Territory.

It will be seen, therefore, that at the end of 1944, 120 out of the 370 separate associations and groups of associations in Australia were organized on an interstate basis. The membership of these 120 unions was 1,063,719 or 87 per cent. of the membership of all unions.

3. Central Labour Organizations.—In each of the capital cities and in a number of industrial centres elsewhere, delegate organizations consisting of representatives from a group of trade unions have been established. Their revenue is raised by means of a per capita tax on the members of each affiliated union. In most of the towns where such central organizations exist, the majority of the local unions are affiliated with the central organization, which is usually known as the Labour or the Trades Hall Council, or the Labour Federation. In Western Australia a unified system of organization extends over the industrial centres throughout the State. In this State there is a provincial branch of the Australian Labour Party, having a central council and executive, and metropolitan and branch district councils, to which the local bodies are affiliated. The central council, on which all district councils are represented, meets periodically. In the other five States, however, the organization is not so close, and, while provision usually exists in the rules of the central council at the capital city of each State for the organization of district councils or for the representation of the central council on the local councils in the smaller industrial centres of the State, the councils in each State are, as a matter of fact, independent bodies.

A new Central Labour Organization, called the Australasian Council of Trade Unions, came into being during 1927. The Council was created to function on behalf of the Trade Unions of Australia, and was founded at an All-Australian Trade Union Congress held in Melbourne in May, 1927. The Australasian Council is based on the Metropolitan Trades and Labour Councils in each State, such bodies having the right to appoint two representatives to act on the Executive of the Council. The Metropolitan Trades and Labour Councils are the branches of the Australasian Council. In addition to the representatives from the Metropolitan Councils, the Executive consists of four officers—the President, two Vice-Presidents, and a Secretary, who are elected by and from the All-Australian Trade Union Congress.

The objective of the Council is the socialization of industry, i.e., production and exchange. The methods to be adopted are:—(a) The closer organization of the workers by the transformation of the Australasian Trade Union Movement from the Craft to an Industrial basis by the establishment of one Union in each industry; (b) the consolidation of the Australasian Labour Movement with the object of unified control, administration and action; (c) the centralized control of industrial disputes; and (d) educational propaganda among unions. The Australasian Council of Trade Unions is the first interstate body in Australia with authority to deal with industrial matters of an interstate character affecting the Trade Union movement generally. It is also the body responsible for submitting to the Commonwealth Government the names of persons suitable for selection as the Australian workers' delegate to the Annual International Labour Conference.

The table below shows the number of metropolitan and district or local labour councils, together with the number of unions and branches of unions affiliated thereto, in each State at the end of 1943 and 1944:—

**CENTRAL LABOUR ORGANIZATIONS: NUMBER, AND UNIONS AFFILIATED,
1943 and 1944.**

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.
1943.								
Number of Councils	7	9	11	2	9	3	1	42
Number of Unions and Branch Unions affiliated ..	210	256	101	61	274	71	9	982
1944.								
Number of Councils	7	9	11	2	9	3	1	42
Number of Unions and Branch Unions affiliated ..	224	263	107	64	277	73	15	1,023

The figures given in the preceding table concerning the number of unions do not necessarily represent separate unions, since the branches of a large union may be affiliated to the local trades councils in the several towns in which they are represented.

Between the trade union and the central organization of unions may be classed certain State or district councils organized on trade lines, and composed of delegates from separate unions whose members' interests are closely connected because of their occupations. Delegate councils of bakers, bread carters and mill employees, or of unions connected directly or indirectly with the iron, steel, or brass trades, or with the building trades, may be so classed.

§ 2. Employers' Associations.

Detailed particulars, the collection of which has now been discontinued, in respect of Employers' Associations for the years 1922 to 1939 appear in issues of the Official Year Book prior to No. 34 and in the *Labour Reports*.

G.—COMPARATIVE INDEX-NUMBERS.

In order to show the relative movements of certain price and related data the following table of annual and quarterly index-numbers for the six capital cities combined has been compiled with a common base 1911 = 1,000.

COMPARATIVE INDEX-NUMBERS FOR THE SIX CAPITAL CITIES COMBINED.

(Base of each Section. Weighted Average of Six Capitals 1911 = 1,000 (a).)

Period.	Retail Price Index-numbers.							Real Wages. (e)	Percentage of Unemployment among Trade Unionists.
	Food and Groceries.	Housing (4 and 5 Rooms). (b)	Food Housing (4 and 5 Rooms) "B" Series.	Clothing.	Miscellaneous.	All Items of Household Expenditure "C" Series.	Nominal Wages, Adult Males.		
Year—									%
1911 ..	1,000	1,000	1,000	(d) 1,000	(d) 1,000	(d) 1,000	1,000	1,000	4.7
1914 ..	1,144	1,082	1,121	1,140	1,140	1,140	1,081	948	8.3
1921 ..	1,902	1,410	1,717	1,883	1,537	1,680	1,826	1,087	11.2
1931 ..	1,477	1,473	1,475	1,289	1,481	1,448	1,752	1,210	27.4
1932 ..	1,425	1,336	1,391	1,215	1,458	1,377	1,639	1,190	29.0
1933 ..	1,342	1,314	1,332	1,190	1,446	1,335	1,584	1,187	25.1
1934 ..	1,400	1,324	1,371	1,187	1,437	1,355	1,590	1,173	20.5
1935 ..	1,442	1,372	1,416	1,184	1,440	1,380	1,612	1,169	16.5
1936 ..	1,475	1,437	1,461	1,197	1,441	1,409	1,638	1,162	12.2
1937 ..	1,521	1,488	1,510	1,226	1,461	1,448	1,707	1,178	9.3
1938 ..	1,584	1,540	1,568	1,253	1,463	1,488	1,799	1,209	8.7
1939 ..	1,657	1,577	1,626	1,271	1,465	1,526	1,846	1,211	9.7
1940 ..	1,679	1,590	1,644	1,445	1,519	1,588	1,889	1,190	8.0
1941 ..	1,693	1,595	1,654	1,690	1,613	1,673	1,997	1,194	3.7
1942 ..	1,843	1,596	1,742	1,977	1,603	1,809	2,164	1,196	1.6
1943 ..	1,855	1,595	1,749	2,177	1,766	1,876	2,309	1,231	1.1
1944 ..	1,834	1,595	1,737	2,168	1,773	1,867	2,326	1,246	1.2
Quarter—									
1938.									
March ..	1,540	1,521	1,534	1,247	1,466	1,467	1,778	1,212	8.0
June ..	1,572	1,534	1,558	1,255	1,461	1,482	1,787	1,206	8.6
September ..	1,616	1,547	1,589	1,256	1,463	1,500	1,806	1,204	9.2
December ..	1,608	1,559	1,589	1,256	1,463	1,501	1,823	1,215	8.9
1939.									
March ..	1,673	1,568	1,631	1,258	1,461	1,524	1,826	1,198	9.6
June ..	1,654	1,575	1,623	1,264	1,463	1,522	1,847	1,214	9.5
September ..	1,645	1,582	1,620	1,264	1,463	1,520	1,854	1,220	10.2
December ..	1,657	1,584	1,628	1,297	1,472	1,536	1,858	1,210	9.3
1940.									
March ..	1,640	1,587	1,620	1,342	1,481	1,542	1,864	1,209	7.9
June ..	1,688	1,589	1,649	1,415	1,518	1,583	1,875	1,184	10.5
September ..	1,676	1,591	1,642	1,450	1,533	1,590	1,903	1,197	7.4
December ..	1,710	1,593	1,663	1,572	1,542	1,635	1,912	1,169	6.2
1941.									
March ..	1,713	1,595	1,666	1,598	1,581	1,651	1,966	1,191	5.3
June ..	1,679	1,595	1,646	1,669	1,594	1,660	1,984	1,195	3.6
September ..	1,673	1,595	1,643	1,705	1,633	1,675	2,002	1,195	3.2
December ..	1,705	1,596	1,662	1,787	1,644	1,707	2,034	1,192	2.9
1942.									
March ..	1,771	1,597	1,701	1,838	1,667	1,716	2,091	1,198	1.8
June ..	1,832	1,596	1,736	1,942	1,673	1,793	2,127	1,186	1.7
September ..	1,887	1,595	1,768	2,028	1,689	1,835	2,182	1,189	1.6
December ..	1,880	1,595	1,764	2,098	1,741	1,860	2,257	1,213	1.3
1943.									
March ..	1,860	1,595	1,752	2,130	1,749	1,863	2,283	1,225	1.2
June ..	1,891	1,595	1,771	2,216	1,763	1,897	2,292	1,208	1.1
September ..	1,853	1,594	1,748	2,192	1,773	1,880	2,331	1,240	1.1
December ..	1,815	1,595	1,726	2,171	1,778	1,864	2,329	1,249	1.1
1944.									
March ..	1,824	1,595	1,731	2,167	1,775	1,864	2,322	1,246	1.0
June ..	1,834	1,595	1,737	2,160	1,773	1,865	2,322	1,245	1.4
September ..	1,852	1,595	1,748	2,166	1,772	1,873	2,327	1,242	1.2
December ..	1,827	1,595	1,733	2,180	1,770	1,867	2,332	1,249	1.2

(a) The index-numbers given in the separate columns of the table cannot be compared with each other in order to show the relative cost of housing, and food and groceries, since the cost in 1911 in each group or combination is made equal to 1,000. (b) See footnote (b) on page 389. (c) Index of nominal weekly wage rates divided by "C" Series index of retail prices. (d) Taken back from true base (November, 1914) by means of the Food and Rent of All Houses ("A" Series) Index.

CHAPTER XIV.

POPULATION.

§ 1. Population Statistics.

Australian population statistics comprise two types—firstly, those derived from Census counts, and, secondly, those derived between Census dates by the application of vital and migration statistics to the numbers recorded at the last Census and subsequently revised in the light of the next Census results.

The results obtained at the Census attain a very high degree of accuracy and may generally be accepted without reservation.

Since the establishment of the Commonwealth Bureau of Census and Statistics attention has been given to the improvement of intercensal estimates. The principal source of error lay in the migration records and efforts were directed towards their improvement. The 1911 Census disclosed an error in the pre-censal estimates of an amount equal to a percentage on the recorded overseas departures from Australia of 14.5 per cent. for males and 10 per cent. for females. These percentages were used as adjusting factors for recorded overseas departures during the intercensal period 1911–21. After the 1921 Census these adjusting factors were reduced to 1 per cent. for males and 4.5 per cent. for females. From the results of the 1933 Census it would appear that the accuracy of the records of overseas migration is such that in future little adjustment to the recorded figures for Australia as a whole will be necessary.

It is improbable that the same degree of accuracy as has been attained in the record of overseas migration can be reached in the case of interstate movements. Records are made of interstate movements by sea, by rail, and by air, but it is impracticable to record the movements by road.

§ 2. The Census.

1. **Census-taking.**—Although “musters” of the population were carried out at least annually from 1788 to 1825, the first regular Census in Australia was not taken until 1828 when a count of the population of the Colony of New South Wales was made. Subsequent Censuses were taken sporadically in the various colonies until 1881 when a Census was taken on the same date throughout Australia.

In 1891 and 1901 Census-taking was still in the hands of the Government Statisticians of the States but, in 1911, under the provisions of the Commonwealth Census and Statistics Act, which provides for the enumeration to be made from one centre instead of by each State as formerly, the Commonwealth Statistician undertook the first Census for the Commonwealth of Australia. The second was taken in 1921.

In accordance with the provisions of the Commonwealth Census and Statistics Act 1905-1920, the third Commonwealth Census would have been taken in 1931, but, owing to the necessity for economy in governmental expenditure, it was decided to defer the Census, and the date was subsequently fixed for 30th June, 1933, the Census for the whole of Australia being taken as for the night between 29th and 30th June, 1933.

Owing to the 1939-45 War the fourth Census, due to be taken in 1941, has been deferred until June, 1947.

2. Results of the Censuses.—The results of the Censuses taken over the period 1828 to 1933 are shown in the following table. The figures exclude full-blood aboriginals.

POPULATION: AUSTRALIAN CENSUSES, 1828 TO 1933.

Population Enumerated (Excluding Full-blood Aboriginals.)

Year.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	N. Terr.	Aust. Cap. Terr.	Australia Total.
1828..	(Nov.) 36,598	..	..	..	..	..	..	..	..
1833..	(2nd Sept.) 60,794	..	..	..	..	..	..	..	..
1836..	(2nd Sept.) 77,096	..	..	..	..	..	..	..	..
1841..	(2nd Mar.) 130,856	..	..	..	..	(27th Sept.) 50,216	..	..	..
1844..	..	..	..	(26th Feb.) 17,366	..	..	..	..	..
1846..	(2nd Mar.) 189,609	..	..	(26th Feb.) 22,390	..	..	..	..	..
1847..	..	..	..	..	..	(31st Dec.) 70,164	..	..	..
1848..	..	..	..	..	(10th Oct.) 4,622	..	..	..	..
1851..	(1st Mar.) (a) 268,344	..	..	(1st Jan.) 63,700	..	(1st Mar.) 70,130	..	..	..
1854..	..	(26th April) (b) 234,928	..	..	(30th Sept.) 11,743	..	..	..	..
1855..	..	..	..	(31st Mar.) 85,821	..	..	..	..	..
1856..	(1st Mar.) 269,722	..	..	..	..	..	..	..	..
1857..	..	(29th Mar.) 408,998	..	..	..	(31st Mar.) 81,492	..	..	..
1859..	..	..	..	..	(31st Dec.) 14,837	..	..	..	..
1861..	(7th April) 350,860	(7th April) 538,628	(7th April) (b) 30,059 (1st Jan.) 61,467	(7th April) 126,530	..	(7th April) 89,977	..	..	..
1864..	..	..	..	(26th Mar.) 163,452	..	..	..	..	..
1866..	..	..	(2nd Mar.) 99,901	..	..	..	..	..	..
1868..	..	..	..	..	(31st Mar.) 24,785	(7th Feb.) 99,328	..	..	..
1870..	(2nd April) 502,998	(2nd April) 730,198	(1st Sept.) 120,104	(2nd April) 185,626	..	..	..	..	..
1871..	..	..	(1st May) 173,283	(26th Mar.) 213,271	..	..	..	..	..
1876..	..	..	213,525	279,865	29,708	115,705	..	..	2,250,194
1881(c)	749,825	861,566	(1st May) 322,853	..	..	..	..	..	..
1886..	..	..	393,718	320,431	49,782	146,667	..	..	3,174,392
1891(d)	1,123,954	1,139,840	498,129	363,157	184,124	172,475	..	..	3,773,801
1896(e)	1,354,846	1,201,070	605,813	408,558	282,114	191,211	(f) 3,310	(b) 1,714	4,455,005
1901(g)	1,646,734	1,315,551	755,972	495,160	332,732	213,780	3,867	2,572	5,435,734
1911(h)	2,100,371	1,531,280	947,534	580,949	438,852	227,599	4,850	8,947	6,629,839
1921	2,600,847	1,820,261	..	..	..	..	..	..	..

(a) Including Port Phillip District, which afterwards became the Colony of Victoria.
 (b) Previously included
 (c) 3rd April.
 (d) 5th April.
 (e) 31st March.
 (f) Previously included with
 (g) 4th April.
 (h) 30th June.

The population of each State and Territory as at the Censuses of 1921 and 1933 is shown in the following table:—

POPULATION OF STATES: 1921 AND 1933.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

State or Territory.	4th April, 1921.			30th June, 1933.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
New South Wales ..	1,071,501	1,028,870	2,100,371	1,318,471	1,282,376	2,600,847
Victoria ..	754,724	776,556	1,531,280	903,244	917,017	1,820,261
Queensland ..	398,969	357,003	755,972	497,217	450,317	947,534
South Australia ..	248,267	246,893	495,160	290,962	289,987	580,949
Western Australia ..	177,278	155,454	332,732	233,937	204,915	438,852
Tasmania ..	107,743	106,037	213,780	115,097	112,502	227,599
Northern Territory ..	2,821	1,046	3,867	3,378	1,472	4,850
Australian Capital Territory ..	1,567	1,005	2,572	4,805	4,142	8,947
Australia ..	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839

3. Increase since 1881 Census.—(i) *Australia.* The increase of population between the 1921 Census and the 1933 Census was 1,194,105, of which 604,241 were males and 589,864 were females, as compared with an increase of 980,729, comprising 449,835 males and 530,894 females, for the preceding ten years. The population enumerated at each Census from 1881 to 1933 was as follows:—

POPULATION OF AUSTRALIA AT EACH CENSUS, 1881 to 1933.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Date.	Males.	Females.	Persons.	Masculinity. (a)
3rd April, 1881 ..	1,214,913	1,035,281	2,250,194	117.35
5th April, 1891 ..	1,704,039	1,470,353	3,174,392	115.89
31st March, 1901 ..	1,977,928	1,795,873	3,773,801	110.14
3rd April, 1911 ..	2,313,035	2,141,970	4,455,005	107.99
4th April, 1921 ..	2,762,870	2,672,864	5,435,734	103.36
31st March, 1931 (b) ..	3,316,423	3,197,704	6,514,127	103.71
30th June, 1933 ..	3,367,111	3,262,728	6,629,839	103.20

(a) Number of males per 100 females.
Census of 30th June, 1933.

(b) These details have been estimated from the

(ii) *States and Territories.* The postponement till 1933 of the Census which ordinarily would have been taken in 1931 destroyed the continuity of the decennial intercensal period which had obtained in Australia since 1881, and consequently the increase shown in the following table for the period 1921–33 (12½ years) is not directly comparable with the results shown for the earlier periods. The corresponding increases for the ten-year

period (1921-31) have been estimated from the latest Census data, and have been inserted in the table. The increases in the population of the several States and Territories during the last five intercensal periods have been as follows :—

POPULATION : INTERCENSAL INCREASES.

State or Territory.	1881-1891.	1901-1901.	1901-1911.	1911-1921.	1921-1931 (estimated)	1921-1933. (12½ years)
New South Wales .. {						
Number	374,129	230,892	293,602	453,637	450,930	500,476
Per cent.	49.90	20.54	21.67	27.55	21.47	23.83
Victoria .. {						
Number	278,274	61,230	114,481	215,729	266,178	288,981
Per cent.	32.30	5.37	9.53	16.40	17.38	18.87
Queensland .. {						
Number	180,193	104,411	107,684	150,159	164,388	191,562
Per cent.	84.39	26.52	21.62	24.79	21.75	25.34
South Australia .. {						
Number	39,119	42,813	50,212	86,602	80,024	85,789
Per cent.	14.15	13.57	14.01	21.20	16.16	17.33
Western Australia .. {						
Number	20,074	134,342	97,990	50,618	98,679	106,120
Per cent.	67.57	209.86	53.22	17.94	29.66	31.89
Tasmania .. {						
Number	30,962	25,808	18,736	22,569	10,674	13,819
Per cent.	26.76	17.60	10.86	11.80	4.99	6.46
Northern Territory {						
Number	1,447	(a) — 87	(a) — 1,501	557	1,104	983
Per cent.	41.93	(a) — 1.78	(a) — 31.20	10.83	28.55	25.42
Australian Capital Territory .. {						
Number	(b)	(b)	(b)	858	6,416	6,375
Per cent.	(b)	(b)	(b)	50.06	249.46	247.86
Australia .. {						
Number	924,198	599,409	681,204	980,729	1,078,393	1,194,105
Per cent.	41.07	18.88	18.05	22.01	19.84	21.97

(a) Decrease.

(b) Included in New South Wales.

For Australia as a whole the numerical increase during the period 1921-31 was greater by 97,664 than that for the period 1911-21, but the percentage increase declined from 22.01 for 1911-21 to 19.84 for 1921-31. During the earlier period the increase corresponds to 2.01 per cent. per annum, and in the latter to 1.83 per cent. per annum.

§ 3. Distribution and Fluctuation of Population.

1. **Present Numbers.**—The population of Australia on 31st December, 1944, was estimated at 7,341,715 persons, of whom 3,684,874, or 50.19 per cent., were males and 3,656,841, or 49.81 per cent., were females. The increase during 1944, excluding deaths of defence personnel, was 81,565, equal to 1.12 per cent., males having increased by 39,587, or 1.08 per cent., and females by 41,978, or 1.16 per cent. This increase was entirely due to the excess of births over deaths, namely, 83,748, there being a net loss by migration of 2,183 persons. Recorded deaths of defence personnel numbered 6,291, of whom 6,243 were males and 48 females. The net increase in the population for 1944 has therefore been taken as 75,274—33,344 males and 41,930 females.

2. **Growth and Distribution.**—The abridged table which follows shows, by sexes, the growth in the population of the various States and Territories from 1788 to 1944.

ESTIMATED POPULATION: 1788 to 1944.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

As at 31st Dec.—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Australia.
MALES.									
1800a	3,780	..	..	..	..	..	..	..	3,780
1810	6,611	..	..	..	..	974	..	..	7,583
1820	19,626	..	..	..	..	4,158	..	..	23,784
1830	33,900	..	..	..	877	18,108	..	..	52,885
1840	85,560	..	..	8,272	1,434	32,040	..	..	127,306
1850	154,976	..	..	35,902	3,576	44,229	..	..	238,683
1860	197,851	(b) 330,302	(b) 16,817	64,340	9,597	49,653	..	..	668,560
1870	272,121	397,230	69,221	94,894	13,511	53,517	..	..	902,494
1880	404,952	450,558	124,013	147,438	16,985	60,568	..	..	1,204,514
1890	602,704	595,519	223,252	166,049	28,854	76,453	..	..	1,602,831
1900	716,047	601,773	274,684	180,349	110,088	89,763	(c) 4,288	..	1,976,992
1910	858,181	646,482	325,513	206,557	157,971	98,866	2,738	..	2,266,308
1920	1,067,945	753,803	396,555	245,300	176,895	107,259	2,911	(b) 1,062	2,751,730
1930	1,294,419	892,422	481,559	288,618	232,868	113,505	3,599	4,732	3,311,722
1934	1,335,123	910,373	502,555	292,519	235,239	116,952	3,440	4,928	3,401,079
1935	1,344,339	911,710	508,381	293,650	237,229	117,978	3,482	5,005	3,421,774
1936	1,355,493	913,304	514,174	294,807	238,704	118,833	3,596	5,287	3,446,198
1937	1,368,505	918,665	519,689	295,611	241,297	120,869	3,641	5,542	3,473,819
1938	1,379,962	925,892	525,271	297,549	243,559	122,098	3,825	6,213	3,504,369
1939de	1,391,351	931,413	532,410	299,255	246,413	122,863	4,231	6,877	3,534,813
1940de	1,398,288	948,654	537,730	298,072	248,146	123,381	4,258	7,568	3,566,097
1941de	1,405,702	967,107	539,967	302,368	248,704	122,038	4,078	7,483	3,597,447
1942de	1,421,294	973,281	537,584	304,253	250,750	122,465	3,972	7,459	3,621,058
1943de	1,429,808	983,190	546,322	306,605	251,294	123,198	4,042	7,071	3,651,530
1944de	1,442,917	990,704	552,381	309,653	253,570	124,367	4,057	7,225	3,684,874
FEMALES.									
1800a	1,437	..	..	..	..	..	..	..	1,437
1810	3,483	..	..	..	..	496	..	..	3,981
1820	8,398	..	..	..	..	1,361	..	..	9,759
1830	10,688	..	..	..	295	6,171	..	..	17,154
1840	41,908	..	..	6,358	877	13,959	..	..	63,102
1850	111,924	..	..	27,798	2,310	24,641	..	..	166,673
1860	159,695	(b) 207,932	(b) 11,239	61,242	5,749	40,168	..	..	477,025
1870	225,871	326,695	46,051	89,652	9,624	47,369	..	..	745,262
1880	336,190	408,047	87,027	128,955	12,576	54,222	..	..	1,027,017
1890	510,571	538,209	168,864	152,898	19,648	68,334	..	..	1,458,524
1900	644,258	594,440	219,163	176,901	69,879	83,137	(c) 569	..	1,788,347
1910	785,674	654,926	273,503	200,311	118,861	94,937	563	..	2,128,775
1920	1,023,777	774,106	354,069	245,706	154,428	105,493	1,078	(b) 910	2,659,567
1930	1,251,934	900,183	435,177	285,849	198,742	111,792	1,365	3,987	3,189,029
1934	1,301,080	927,117	456,992	291,775	207,371	114,495	1,504	4,264	3,304,598
1935	1,313,327	931,313	462,338	292,793	210,516	115,130	1,609	4,314	3,331,340
1936	1,326,243	936,289	467,960	294,505	212,853	115,495	1,709	4,500	3,360,554
1937	1,342,233	940,822	473,772	295,590	215,814	118,121	1,713	4,706	3,392,771
1938	1,355,733	947,868	478,879	297,560	218,902	119,309	1,820	5,251	3,425,322
1939de	1,371,438	954,843	486,723	299,655	222,420	119,661	1,981	5,792	3,462,513
1940de	1,384,703	969,713	492,795	301,326	224,514	119,982	2,041	6,518	3,502,592
1941de	1,396,312	984,308	500,020	305,479	225,613	119,643	1,492	6,908	3,539,775
1942de	1,411,839	994,945	502,952	308,816	229,132	119,686	980	7,214	3,575,564
1943de	1,425,054	1,005,748	511,772	311,992	231,160	120,858	1,113	7,214	3,614,911
1944de	1,441,931	1,014,889	519,060	315,645	234,598	122,192	1,152	7,374	3,656,841

(a) Details as to sex not available for earlier years.

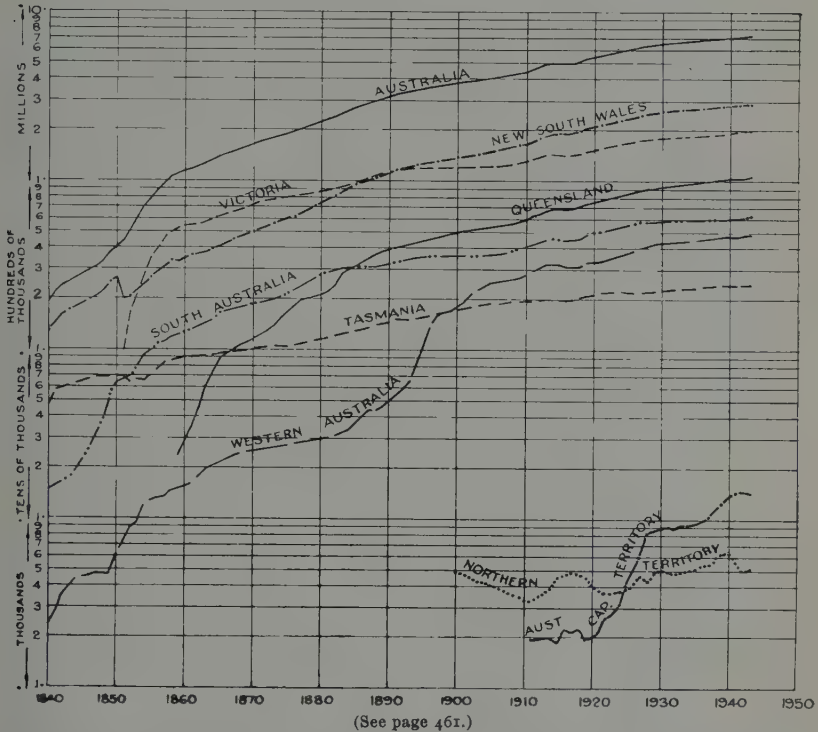
(b) Previously included with New South

Wales. (c) Previously included with South Australia.

(d) See note (d) next page. (e) Subject

to revision; see Appendix for revised figures.

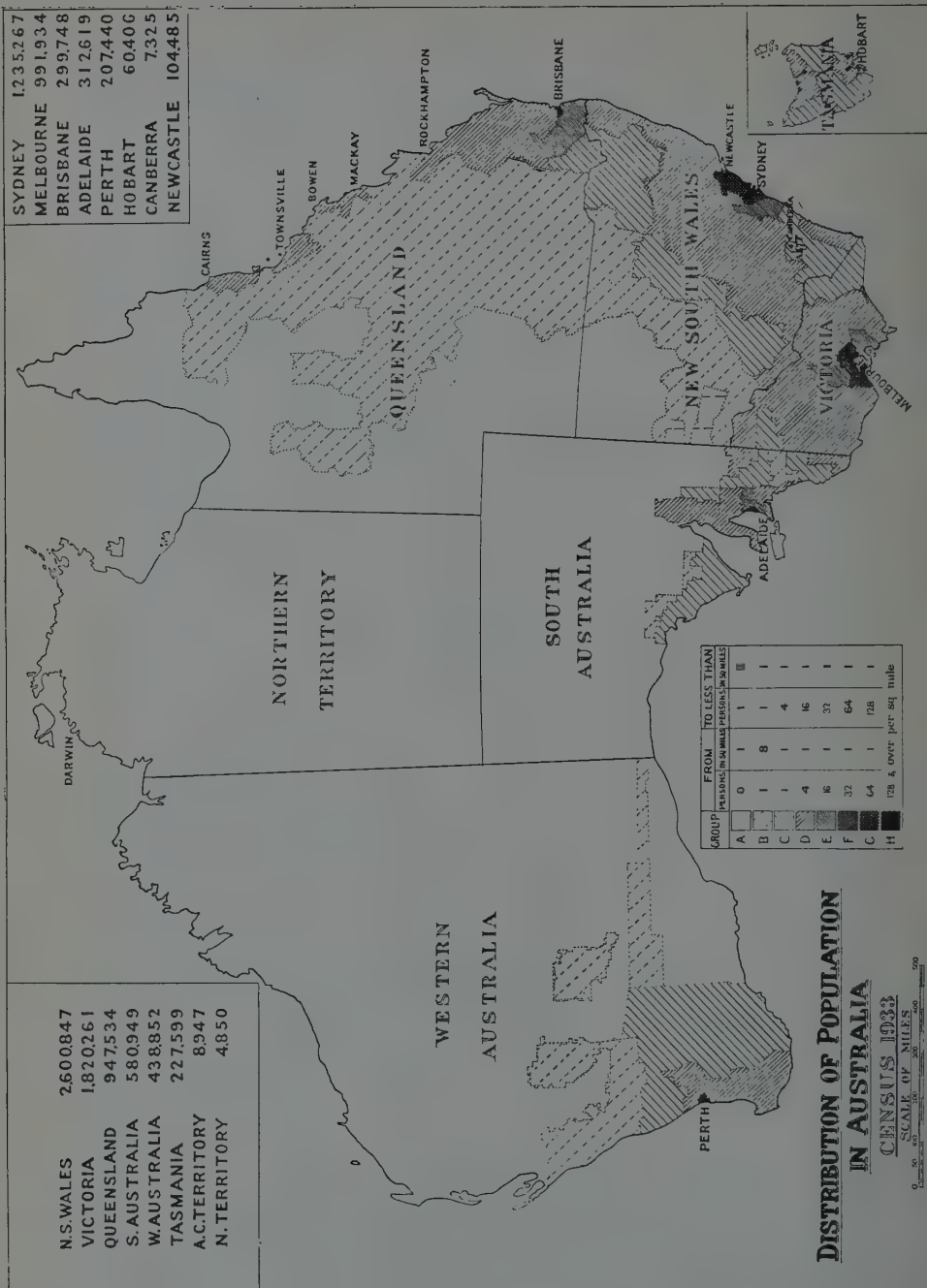
POPULATION OF AUSTRALIA, 1840 TO 1943 (RATIO GRAPH).



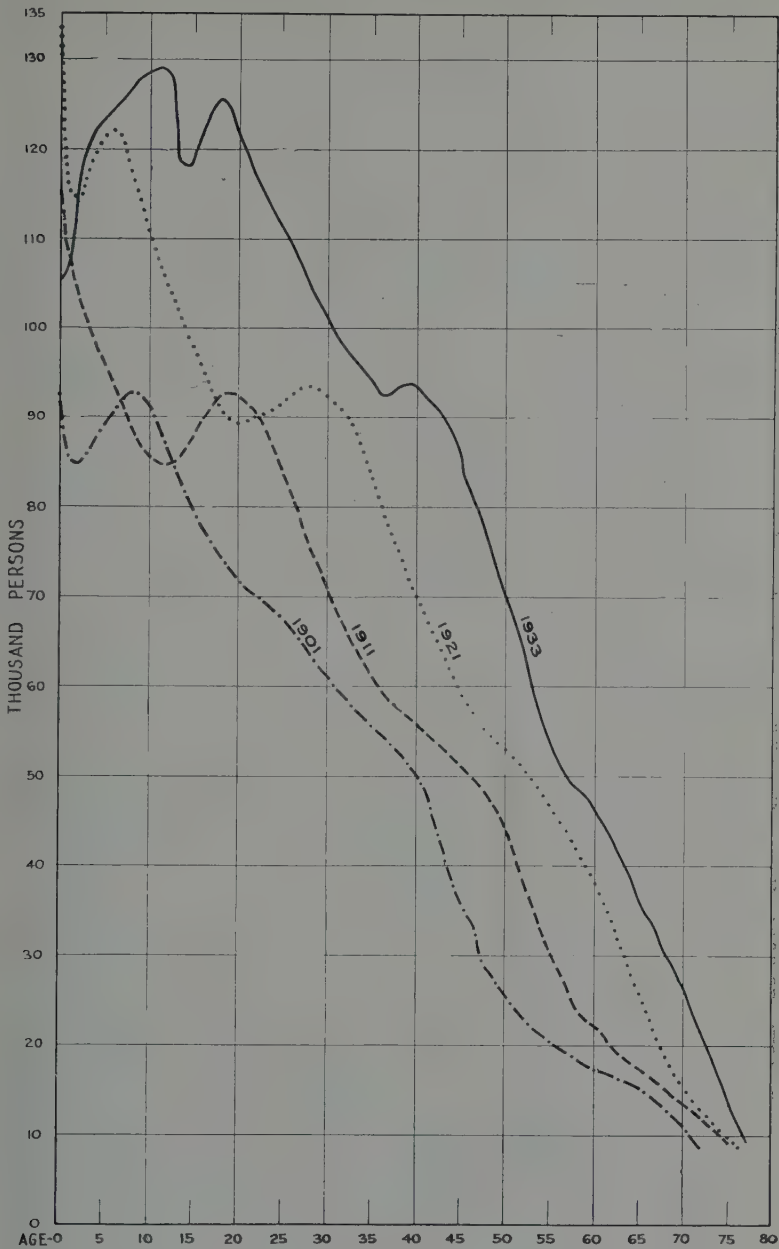
(See page 461.)

EXPLANATION.—This is a ratio graph, the vertical scale being logarithmic, and the curves rise and fall according to the rate of increase or decrease. Actual numbers are indicated by the scale at the side of the graph.

The curves represent the estimated population of each State at 31st December each year.



AUSTRALIA—GRADUATED AGE DISTRIBUTION OF POPULATION, CENSUSES OF 1901.,
1911, 1921 AND 1933.



EXPLANATION.—This graph affords a comparison between the age distribution of the population at each of the last four censuses.

ESTIMATED POPULATION—continued.

As at 31st Dec.—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	* Tas.	Nor. Terr.	Aust. Cap. Terr.	Australia.
PERSONS.									
1788	859	..	..	..	..	..	..	..	859
1790	2,056	..	..	..	..	..	..	..	2,056
1800	5,217	..	..	..	..	..	..	..	5,217
1810	10,096	..	..	..	..	1,470	..	..	11,566
1820	28,024	..	..	..	..	5,519	..	..	33,543
1830	44,588	..	..	..	1,172	24,279	..	..	70,039
1840	127,468	..	..	14,630	2,311	45,999	..	..	190,408
1850	266,900	..	..	63,700	5,886	68,870	..	..	405,356
1860	348,546	(a) 538,234	(a) 28,056	125,582	15,346	89,821	..	..	1,145,585
1870	497,992	723,925	115,272	184,546	25,135	100,886	..	..	1,647,756
1880	741,142	858,605	211,040	276,393	29,561	114,790	..	..	2,321,531
1890	1,113,275	1,133,728	392,116	318,947	48,502	144,787	..	..	3,151,355
1900	1,360,305	1,196,213	493,847	357,250	179,967	172,900	(b) 4,857	..	3,765,339
1910	1,643,855	1,301,408	599,016	406,868	276,832	193,803	3,301	..	4,425,083
1920	2,091,722	1,527,909	750,624	491,006	331,323	212,752	3,989	(a) 1,972	5,411,297
1930	2,546,353	1,792,605	916,736	574,467	431,610	225,297	4,964	8,719	6,500,751
1934	2,636,203	1,837,490	959,497	584,294	442,610	231,447	4,944	(c) 9,192	6,705,677
1935	2,657,666	1,843,023	970,719	586,143	447,745	233,108	5,091	(c) 9,319	6,753,114
1936	2,681,736	1,851,593	982,134	589,312	457,557	235,328	5,305	(c) 9,787	6,806,752
1937	2,710,738	1,859,487	993,461	591,201	457,111	238,090	5,354	(r) 10,248	6,866,590
1938	2,735,695	1,873,760	1,004,150	595,109	462,461	241,407	5,645	11,464	6,926,641
1939de	2,762,789	1,886,256	1,019,133	598,910	468,833	242,524	6,212	12,669	6,997,326
1940de	2,782,991	1,918,367	1,031,525	599,398	472,660	243,363	6,299	14,086	7,068,689
1941de	2,802,014	1,951,415	1,039,987	607,847	474,317	241,681	5,570	14,391	7,137,222
1942de	2,833,133	1,968,226	1,040,536	613,069	479,882	242,151	4,952	14,673	7,196,622
1943de	2,854,862	1,988,938	1,058,094	618,597	482,454	242,056	5,155	14,285	7,266,441
1944de	2,884,848	2,005,593	1,071,441	625,298	488,168	246,559	5,209	14,599	7,341,715

(a) Previously included with New South Wales. (b) Previously included with South Australia.
(c) See letterpress below. (d) Includes all defence personnel enlisted in Australia irrespective of movements subsequent to enlistment. (e) Subject to revision; see Appendix for revised figures.

Estimates of population for intercensal years are obtained by applying the vital and migration statistics for those years to the numbers recorded at the Census. Figures for interstate migration are liable to error owing to the impracticability of tracing movements of motor traffic. The estimates of populations of the Australian Capital Territory and the Northern Territory are particularly affected by this difficulty. A supplementary Census for the Australian Capital Territory taken on 30th June, 1938, revealed considerable understatement in the intercensal estimates of population during the preceding five years. The discrepancy is believed to be due to the unrecorded movements by road, and the following are revised estimates of population at 31st December, based on corrected net migration figures for the years affected—1934, 9,457; 1935, 9,761; 1936, 10,406; and 1937, 11,043. As the corresponding State population estimates are affected by relatively small amounts only, it has been considered desirable to postpone the adjustments involved until the completion of the next Australian Census, when they will be incorporated in the general revision of intercensal population estimates and migration records.

Estimates of population for the period 1st July, 1939 to 30th June, 1943, have been revised in the light of data obtained from the Civilian Register of June, 1943. In view of the uncertainty of war-time records of interstate migration, the populations of the States subsequent to 30th June, 1943, have been estimated on the basis of natural increase, deaths of defence personnel and oversea migration.

The results of the 1938 Census of the Australian Capital Territory will be found in § 11 of this chapter.

A comparison of annual rates of growth of population of Australia and other countries will be found in § 4 par. 4 of this chapter.

The growth of the population of Australia and of each State thereof is illustrated by the graph accompanying this chapter on page 457.

3. Mean Population.—(i) *Method of Calculation.* The mean population for any year is calculated by the formula :—

$$\text{Mean Population} = \frac{a + 4b + 2c + 4d + e}{12}$$

where *a*, *b*, *c*, *d* and *e*, respectively, are the populations at 31st December of the preceding year and 31st March, 30th June, 30th September and 31st December of the year under consideration. This formula derived by mathematical processes calculates the mean population on the assumption that the population has progressed smoothly through the five values *a*, *b*, *c*, *d*, *e*.

In view of the tentative nature of the interstate population estimates subsequent to 30th June, 1943, the mid-year estimates have been regarded as the mean of years covering periods which follow that date.

(ii) *Calendar Years.* The following table shows the mean population for each State and Territory for the calendar years 1934 to 1944 :—

MEAN POPULATION : CALENDAR YEARS, 1934 to 1944.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Year ended 31st Dec.—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Australia.
1934 ..	2,623,560	1,830,898	955,584	583,343	441,611	229,161	4,933	(a)9,259	6,678,349
1935 ..	2,645,375	1,839,361	966,198	585,015	445,384	229,616	5,101	(a)9,382	6,725,632
1936 ..	2,667,839	1,847,665	978,589	587,549	450,036	231,046	5,255	(a)9,765	6,777,744
1937 ..	2,694,679	1,856,033	989,668	589,143	454,295	233,951	5,411	a10,195	6,833,375
1938 ..	2,721,196	1,867,818	1,000,749	592,579	459,977	235,678	5,726	11,124	6,894,847
1939(b)(c)	2,748,192	1,881,854	1,013,710	596,371	465,531	238,097	5,999	12,092	6,961,846
1940(b)(c)	2,772,185	1,903,753	1,026,124	599,119	470,922	240,447	6,255	13,556	7,032,361
1941(b)(c)	2,791,169	1,936,725	1,037,416	602,119	473,819	239,824	6,276	14,705	7,102,053
1942(b)(c)	2,818,269	1,964,838	1,037,972	610,813	478,722	240,732	4,890	14,627	7,177,863
1943(b)(d)	2,841,227	1,980,289	1,051,636	615,484	479,624	242,345	5,144	14,115	7,229,864
1944(b)(d)	2,870,956	1,997,804	1,065,414	621,998	485,407	245,434	5,179	14,444	7,306,636

(a) See letterpress following previous table. The following are revised estimates :—1934, 9,435; 1935, 9,735; 1936, 10,295; 1937, 10,902. (b) Includes all defence personnel enlisted in Australia irrespective of movements subsequent to enlistment. (c) Subject to revision; see Appendix for revised figures. (d) June estimate, subject to revision; see Appendix for revised figures.

(iii) *Financial Years.* The mean population for financial years is now widely used in connexion with rates for those statistics which are tabulated on a financial year basis. The following table shows the mean population for each State and Territory for the years ended 30th June, 1935 to 1945 :—

MEAN POPULATION : FINANCIAL YEARS, 1934-35 to 1944-45.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Australia.
1935 ..	2,634,353	1,836,438	960,859	584,162	443,160	229,148	5,020	(a)9,276	6,702,416
1936 ..	2,656,512	1,845,079	972,190	586,197	447,855	230,374	5,164	(a)9,525	6,750,896
1937 ..	2,680,730	1,852,071	984,117	588,300	451,890	232,208	5,320	a10,000	6,804,636
1938 ..	2,708,833	1,861,074	995,333	590,722	457,210	235,048	5,540	a10,458	6,864,218
1939 ..	2,733,936	1,874,967	1,006,831	594,402	462,671	236,926	5,847	11,708	6,927,288
1940(b)(c)	2,760,591	1,889,864	1,020,455	598,379	468,510	239,291	6,214	12,859	6,996,163
1941(b)(c)	2,782,455	1,920,422	1,032,303	599,309	472,811	240,372	6,298	14,236	7,068,206
1942(b)(c)	2,802,393	1,953,589	1,038,130	607,288	475,830	239,898	5,574	14,572	7,137,274
1943(b)(c)	2,830,866	1,971,126	1,042,931	612,921	480,196	241,420	4,956	14,578	7,198,994
1944(b)(d)	2,854,862	1,988,932	1,058,094	618,597	482,454	244,056	5,155	14,285	7,266,441
1945(b)(d)	2,884,848	2,005,593	1,071,441	625,298	488,168	246,559	5,209	14,599	7,341,715

(a) See letterpress following table in paragraph 2 above. The following are revised estimates :—1934-35, 9,540; 1935-36, 9,967; 1936-37, 10,619; 1937-38, 11,180. (b) Includes all defence personnel enlisted in Australia irrespective of movements subsequent to enlistment. (c) Subject to revision; see Appendix for revised figures. (d) Estimate for 31st December of previous year; subject to revision; see Appendix for revised figures.

4. Proportion of Area and Population. Masculinity and Density : States, 1944.—A previous table showed the estimated number of persons in each of the States and Territories on 31st December, 1944. In the following table the percentages of the total area and of the total population represented by each State or Territory are given, together with the masculinity and the density of population :—

MASCULINITY AND DENSITY OF POPULATION, 1944.

State or Territory.	Percentage of Total Area.	Percentage of Estimated Population, 31st December, 1944.			Masculinity.(a)	Density.(b)
		Males.	Females.	Persons.		
	%	%	%	%		
New South Wales ..	10.40	39.16	39.43	39.29	100.07	9.32
Victoria ..	2.96	26.89	27.75	27.32	97.62	22.82
Queensland ..	22.54	14.99	14.20	14.59	106.42	1.60
South Australia ..	12.78	8.40	8.63	8.52	98.10	1.65
Western Australia ..	32.81	6.88	6.42	6.65	108.09	0.50
Tasmania ..	0.88	3.37	3.34	3.36	101.78	9.41
Northern Territory ..	17.60	0.11	0.03	0.07	352.17	0.01
Australian Capital Territory	0.03	0.20	0.20	0.20	97.98	15.55
Australia ..	100.00	100.00	100.00	100.00	100.77	2.47

(a) Number of males per 100 females.

(b) Number of persons per square mile.

Additional information regarding masculinity and density of population appears in later sections of this chapter.

5. Urban and Rural Distribution.—At the 1933 Census, information was obtained regarding the distribution of the population amongst urban and rural areas. The metropolitan division of each State includes the capital city and the adjoining urban municipal areas; the urban provincial districts in all States excepting Tasmania were taken for Census purposes as being those cities and towns which are not adjacent to the metropolitan areas, and which are incorporated for local government purposes; the rural area comprises the remainder of the State whether incorporated or not incorporated. In Tasmania the classification of urban and rural populations was made by the Census staff. Persons on board ships in Australian ports or travelling on long-distance trains throughout Census night were classed as migratory.

The results obtained at the Census for each State and Territory are shown in the following table :—

URBAN AND RURAL POPULATION : 1933 CENSUS.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Division.	1933 Census.			Percentage of Total Population of State.		Percentage Increase since the 1921 Census.
	Males.	Females.	Persons.	1921 Census.	1933 Census.	
NEW SOUTH WALES.						
Urban—				%	%	%
Metropolitan	591,104	644,163	1,235,267	42.80	47.50	37.40
Provincial ..	283,439	282,001	565,440	25.00	21.74	7.70
Rural ..	439,486	355,615	795,101	31.64	30.57	19.64
Migratory ..	4,442	597	5,039	0.56	0.19	—56.99
Total ..	1,318,471	1,282,376	2,600,847	100.00	100.00	23.83

NOTE.—Minus sign (—) denotes decrease.

URBAN AND RURAL POPULATION, ETC.—*continued.*

Division.	1933 Census.			Percentage of Total Population of State.		Percentage Increase since the 1921 Census.
	Males.	Females.	Persons.	1921 Census.	1933 Census.	

VICTORIA.

Urban—				%	%	%
Metropolitan	464,775	527,159	991,934	50.05	54.49	29.42
Provincial ..	94,790	103,401	198,191	12.24	10.89	5.71
Rural ..	342,233	286,325	628,558	37.33	34.53	9.97
Migratory ..	1,446	132	1,578	0.38	0.09	-72.55
Total ..	903,244	917,017	1,820,261	100.00	100.00	18.87

QUEENSLAND.

Urban—				%	%	%
Metropolitan	143,525	156,223	299,748	27.77	31.63	42.77
Provincial ..	97,853	101,291	199,144	24.30	21.02	8.40
Rural ..	252,357	192,232	444,589	47.49	46.92	23.84
Migratory ..	3,482	571	4,053	0.44	0.43	23.12
Total ..	497,217	450,317	947,534	100.00	100.00	25.34

SOUTH AUSTRALIA.

Urban—				%	%	%
Metropolitan	147,936	164,683	312,619	51.57	53.81	22.42
Provincial ..	25,290	26,166	51,456	8.41	8.86	23.58
Rural ..	115,909	98,853	214,762	39.39	36.97	10.10
Migratory ..	1,827	285	2,112	0.63	0.36	-31.74
Total ..	290,962	289,987	580,949	100.00	100.00	17.33

WESTERN AUSTRALIA.

Urban—				%	%	%
Metropolitan	99,288	108,152	207,440	46.55	47.27	33.94
Provincial ..	23,060	21,745	44,805	12.79	10.21	5.25
Rural ..	108,732	74,677	183,409	39.10	41.79	40.98
Migratory ..	2,857	341	3,198	1.56	0.73	-38.38
Total ..	233,937	204,915	438,852	100.00	100.00	31.89

NOTE.—Minus sign (—) denotes decrease.

URBAN AND RURAL POPULATION, ETC.—*continued.*

Division.	1933 Census.			Percentage of Total Population of State.		Percentage Increase since the 1921 Census.
	Males.	Females.	Persons.	1921 Census.	1933 Census.	
TASMANIA.						
Urban—				%	%	%
Metropolitan	28,351	32,055	60,406	24.49	26.54	15.30
Provincial ..	26,971	29,806	56,777	26.03	24.95	2.04
Rural ..	59,138	50,629	109,767	49.17	48.23	4.42
Migratory ..	637	12	649	0.31	0.28	-0.46
Total ..	115,097	112,502	227,599	100.00	100.00	6.46

NORTHERN TERRITORY.

Urban—				%	%	%
Provincial ..	912	654	1,566	36.18	32.29	11.94
Rural ..	2,391	818	3,209	62.14	66.16	33.54
Migratory ..	75	..	75	1.68	1.55	15.38
Total ..	3,378	1,472	4,850	100.00	100.00	25.42

AUSTRALIAN CAPITAL TERRITORY.

Urban—				%	%	%
Provincial ..	3,839	3,486	7,325	..	81.87	..
Rural ..	966	656	1,622	99.65	18.13	..
Migratory ..	..	..	..	0.35	..	..
Total	4,805	4,142	8,947	100.00	100.00	247.86

AUSTRALIA.

Urban—				%	%	%
Metropolitan	1,474,979	1,632,435	3,107,414	43.01	46.87	32.90
Provincial ..	556,154	568,550	1,124,704	19.09	16.97	8.41
Rural ..	1,321,212	1,059,805	2,381,017	37.35	35.91	17.27
Migratory ..	14,766	1,938	16,704	0.55	0.25	-43.88
Total ..	3,367,111	3,262,728	6,629,839	100.00	100.00	21.97

NOTE.—Minus sign (—) denotes decrease.

At 30th June, 1933, the metropolitan divisions contained 46.87 per cent. of the total population of Australia as compared with 43.01 per cent. at the 1921 Census. Victoria had the largest percentage of population residing in the metropolitan area (54.49) but was closely followed in this respect by South Australia (53.81). During the intercensal period, however, the highest rates of increase in metropolitan population were experienced in Queensland and New South Wales.

The percentage of population in the rural divisions of Australia declined from 37.35 per cent. on 4th April, 1921, to 35.91 per cent. on 30th June, 1933. Of the States, Tasmania, with 48.23 per cent., had the largest proportion of population residing in the rural sections of the State and Queensland was next with 46.92 per cent. Since the 1921 Census, however, the greatest percentage increase in rural population occurred in Western Australia (40.98 per cent.), which was more than double the average rate of increase for rural areas in Australia.

A feature of the metropolitan population is its high femininity. In 1921, 52.3 per cent. of the metropolitan population was composed of females, and in 1933 the proportion had risen slightly to 52.5 per cent., the proportion being highest in Victoria and Tasmania at 53.1 per cent.

6. **Metropolitan Population : Australia and Other Countries.**—In Australia there is an abnormal concentration of population in the capital cities, which are the only cities of outstanding importance in the various States. A comparison with the capitals of the more important countries is given in the following table. For countries which were belligerents at the outset of the 1939-45 War the latest available figures prior to the outbreak of hostilities are quoted and for other countries figures for 1939 or the year nearest thereto. Later figures are available in most cases but there is some doubt as to their comparability because of the abnormal distribution of population during war-time.

METROPOLITAN POPULATION : AUSTRALIA AND OTHER COUNTRIES.

State or Country.	Metropolis.	Year.	Metropolitan Population.
New South Wales	Sydney	1939	1,302,890
Victoria	Melbourne	"	1,046,750
Queensland	Brisbane	"	326,000
South Australia	Adelaide	"	322,990
Western Australia	Perth	"	224,800
Tasmania	Hobart	"	65,450
England	London (a)	1938	8,700,000
Scotland	Edinburgh	1939	473,200
Northern Ireland	Belfast	"	444,500
Eire	Dublin	"	482,300
Canada	Montreal (b)(c)	1936	1,000,000
New Zealand	Wellington	1939	157,900
Union of South Africa	Capetown (d)	1936	173,412
Argentina	Buenos Aires	1939	2,364,263
Belgium	Brussels	1938	912,774
Brazil	Rio de Janeiro	1938	1,849,000
Czechoslovakia	Prague	1936	962,000
Denmark	Copenhagen	1935	843,168
Egypt	Cairo	1937	1,307,422
France	Paris	1936	2,829,746
Germany	Berlin	1939	4,332,242
Greece	Athens	1938	499,360
Hungary	Budapest	1939	1,115,877
Italy	Rome	"	1,324,775
Japan	Tokyo (e)	"	6,581,100
Netherlands	Amsterdam	1938	793,526
Norway	Oslo	"	275,000
Poland	Warsaw	1939	1,289,000
Portugal	Lisbon	"	680,806
Spain	Madrid	1940	1,209,074
Sweden	Stockholm	1939	580,000
U.S.A.	New York (c)	1940	7,454,995
U.S.S.R. (Russia)	Moscow	1939	4,137,018

(a) Greater London. (b) Greater Montreal. (c) Principal City. (d) European population.
(e) Greater Tokyo.

NOTE.—The population of Canberra in 1939 was 10,420.

7. Principal Urban Areas.—The following table gives the population of the principal urban incorporated areas in each State and Territory of Australia at the 1933 Census :—

POPULATION OF PRINCIPAL URBAN INCORPORATED AREAS: AUSTRALIA.
1933 CENSUS.

City or Town.	Population.	City or Town.	Population.
New South Wales—		Queensland—continued.	
Sydney and Suburbs	1,235,267	Townsville	25,876
Newcastle and Suburbs	104,485	Ipswich	22,498
Broken Hill	26,925	Cairns	11,993
Goulburn	14,849	Bundaberg	11,466
Cessnock	14,385	Maryborough	11,413
Lithgow	13,444	MacKay	10,665
East and West Maitland	12,329	Gympie	7,749
Liamore	11,762	Charlton Towers	6,978
Wagga Wagga	11,631	Warwick	6,664
Wollongong	11,403		
Albury	10,543		
Bathurst	10,413		
Tamworth	9,913	South Australia—	
Orange	9,634	Adelaide and Suburbs	312,619
Fairfield	8,709	Port Pirie	11,677
Grafton and South Grafton	8,551	Mount Gambier	5,542
Dubbo	8,344	Murray Bridge	3,651
Armidale	6,794	Port Augusta	3,270
Katoomba	6,445	Peterborough	3,059
Liverpool	6,315	Port Lincoln	3,006
Cabramatta and Canley Vale	6,157		
Parkes	5,846		
Forbes	5,355	Western Australia—	
Glen Innes	5,352	Perth and Suburbs	(a) 207,440
Inverell	5,305	Kalgoorlie and Suburbs	17,326
Casino	5,287	Bunbury	5,140
Cowra	5,056	Geraldton	4,984
		Northam	4,817
		Albany	4,076
		Collie	3,784
Victoria—			
Melbourne and Suburbs	991,934	Tasmania—	
Geelong and Suburbs	39,223	Hobart and Suburbs	60,406
Ballarat and Suburbs	37,411	Launceston and Suburbs	32,833
Bendigo and Suburbs	29,131	Devonport	5,151
Warrnmbool	8,906	Queenstown	3,809
Mildura	6,617	Burnie	3,390
Hamilton	5,786	Ulverstone	2,701
Shepparton	5,668		
Maryborough	5,631		
Wonthaggi	5,593		
Horsham	5,273	Northern Territory—	
Castlemaine	5,221	Darwin	1,566
Queensland—		Australian Capital Territory—	
Brisbane and Suburbs	299,748	Canberra	7,325
Rockhampton	29,369		
Toowoomba	26,423		

(a) Includes the City of Fremantle, 25,224.

8. Provincial Urban Areas.—In par. 5, p. 463, the percentage of the total population of each State which is located in incorporated urban provincial areas is shown. In the following table, however, the aggregate population of all cities and towns, outside the metropolitan area of each State, with 2,000 and 3,000 or more inhabitants is shown, irrespective of whether such centres are incorporated separately or not. In addition, the percentage of the aggregate population of these cities and towns to the total population of the State at the 1933 Census is shown.

AGGREGATE POPULATION OF CITIES AND TOWNS OF SPECIFIED SIZE : 1933 CENSUS.

State or Territory.	Cities and Towns outside Metropolitan Area with Population of—					
	2,000 and over.			3,000 and over.		
	Number.	Population.	Percentage of Population.	Number.	Population.	Percentage of Population.
New South Wales ..	106	567,094	21.80	69	474,150	18.23
Victoria ..	51	266,355	14.63	29	212,686	11.68
Queensland ..	33	233,154	24.61	19	199,496	21.05
South Australia ..	9	37,207	6.40	6	30,205	5.19
Western Australia ..	9	42,572	9.70	7	37,697	8.59
Tasmania ..	6	44,512	19.55	4	39,971	17.56
Australian Capital Territory ..	1	7,325	81.87	1	7,325	81.87
Total ..	215	1,198,219	18.07	135	1,001,530	15.16

9. **Principal Cities in the World.**—The following table shows the population of the world's largest cities at the latest available date prior to the outbreak of hostilities for countries which were belligerents at the outset of the 1939-45 War and the nearest available date to 1939 for other countries. There is some doubt as to the comparability of figures for subsequent dates.

POPULATION OF THE WORLD'S LARGEST CITIES. (Cities in the British Empire are printed in Italics.)

Country.	City.	Year.	City Population ('000 omitted).	Country.	City.	Year.	City Population ('000 omitted).
England ..	<i>London (a) ..</i>	1938	8,700	Mexico ..	Mexico City	1940	1,030
U.S.A. ..	New York ..	1940	7,455	China ..	Nanking ..	1936	1,019
Japan ..	Tokyo (b) ..	1938	6,581	Japan ..	Kobe ..	1939	1,006
Germany ..	Berlin ..	1939	4,332	Canada ..	<i>Montreal (d)</i>	1936	1,000
U.S.S.R. ..	Moscow ..	1939	4,137	Czechoslovakia	Prague ..	1936	962
China ..	Shanghai ..	1936	3,490	Italy ..	Naples ..	1939	929
U.S.A. ..	Chicago ..	1940	3,397	France ..	Marseilles ..	1936	914
Japan ..	Osaka ..	1939	3,394	Belgium ..	Brussels ..	1938	913
U.S.S.R. ..	Leningrad ..	1939	3,191	U.S.A. ..	Cleveland ..	1940	878
France ..	Paris ..	1936	2,830	Japan ..	Yokohama	1939	866
Argentina ..	Buenos Aires	1939	2,364	U.S.A. ..	Baltimore	1940	859
U.S.A. ..	Philadelphia	1940	1,931	U.S.S.R. ..	Kiev ..	1939	846
Germany ..	Vienna ..	1939	1,918	Denmark ..	Copenhagen	1935	843
Brazil ..	Rio de Janeiro	1938	1,849	U.S.S.R. ..	Kharkov ..	1939	833
Germany ..	Hamburg ..	1939	1,682	Germany ..	Munich ..	1939	828
U.S.A. ..	Detroit ..	1940	1,623	England ..	<i>Liverpool</i> ..	1938	827
U.S.A. ..	Los Angeles	1940	1,501	U.S.A. ..	St. Louis ..	1940	816
India ..	<i>Calcutta (c)</i>	1931	1,486	Canada ..	<i>Toronto (e)</i> ..	1931	809
Spain ..	Barcelona ..	1940	1,423	U.S.S.R. ..	Baku ..	1939	809
Italy ..	Rome ..	1939	1,325	Netherlands	Amsterdam	1939	794
Egypt ..	Cairo ..	1937	1,307	Turkey ..	Istanbul ..	1940	794
Australia ..	<i>Sydney</i> ..	1939	1,303	China ..	Hankow ..	1931	778
China ..	Tientsin ..	1936	1,292	U.S.A. ..	Boston ..	1940	770
Poland ..	Warsaw ..	1939	1,289	Uruguay ..	Montevideo	1941	770
Brazil ..	Sao Paulo ..	1938	1,269	Germany ..	Cologne ..	1939	768
Japan ..	Nagoya ..	1939	1,249	England ..	<i>Manchester</i>	1938	733
Italy ..	Milan ..	1939	1,224	Portugal ..	Lisbon ..	1940	709
China ..	Canton ..	1936	1,223	Germany ..	Leipzig ..	1939	702
Spain ..	Madrid ..	1940	1,209	Italy ..	Turin ..	1939	700
Japan ..	Kyoto ..	1939	1,177	Egypt ..	Alexandria	1937	682
India ..	<i>Bombay</i> ..	1931	1,161	Thailand ..	Bangkok ..	1940	681
Scotland ..	<i>Glasgow</i> ..	1939	1,132	Poland ..	Lodz ..	1939	672
Hungary ..	Budapest ..	1939	1,116	U.S.A. ..	Pittsburgh	1940	671
Australia ..	<i>Melbourne</i> ..	1939	1,047	U.S.A. ..	Washington	1940	663
England ..	<i>Birmingham</i>	1938	1,041	Italy ..	Genoa ..	1939	662
				Germany ..	Essen ..	1939	660

(a) Greater London. (b) Greater Tokyo. (c) Includes Howrah. (d) Greater Montreal.
(e) Greater Toronto.

POPULATION OF THE WORLD'S LARGEST CITIES—*continued.*(Cities in the British Empire are printed in *italics*.)

Country.	City.	Year.	City Population (‘000 omitted).	Country.	City.	Year.	City Population (‘000 omitted).
Rumania	Bucharest	1939	648	Germany	Frankfort-on-		
India	<i>Madras</i>	1931	647		Main	1939	547
U.S.S.R.	Gorky	1939	644	Malaya	<i>Singapore</i>	1940	644
Hong Kong	<i>Hong Kong</i>	1938	641	Germany	Dusseldorf	1939	540
Chile	Santiago	1940	640	Germany	Dortmund	1939	537
U.S.A.	San Francisco	1940	635	China	Hangchow	1936	537
China	Wenchow	1931	631	Brazil	Fernambuco		
Germany	Dresden	1939	625		(Recife)	1938	530
Germany	Breslau	1939	615	Peru	Lima	1940	523
Netherlands	Rotterdam	1939	612	England	<i>Sheffield</i>	1938	620
China	Changsha	1931	607	U.S.S.R.	Tiflis	1939	519
U.S.S.R.	Odesa	1939	604	Argentina	Rosario		
U.S.A.	Milwaukee	1940	587		(Santa Fe)	1941	519
U.S.S.R.	Taschkent	1939	585	China	Tsingtao	1936	515
Sweden	Stockholm	1939	580	U.S.S.R.	Rostov-on-		
U.S.A.	Buffalo	1940	576		Don	1939	510
France	Lyons	1936	571	U.S.S.R.	Dnieper-		
Cuba	Havana	1938	569		petrovsk	1939	501

§ 4. Elements of Increase.

1. Natural Increase.—(i) *General.* The two factors which contribute to the growth of a population are the “natural increase,” i.e., excess of births over deaths, and the “net migration,” i.e., the excess of arrivals over departures. In earlier issues of the Official Year Book particulars of the natural increase from 1861 are given for each sex and State (see No. 22, p. 899). In the following table particulars for each sex are given in States for each quinquennium from 1901 to 1940 and for the eight years 1937–44. The natural increase for Australia from 1861 to 1944 inclusive was 4,847,267, consisting of 2,248,659 males and 2,598,608 females, and represented 78.23 per cent. of the total increase in population. During the present century the rate of natural increase grew until it reached the maximum rate of 17.44 per thousand of population in 1914, but it steadily declined after that year to 7.07 in 1934. The figure rose to 7.99 per thousand in 1937 following small gains during each of the previous three years, fell slightly to 7.72 in 1939 and rose again to 11.46 in 1944.

In connexion with the two last-mentioned rates it should be particularly noted that for the years 1939 to 1944 “natural increase” has been regarded as excess of births over civilian deaths, i.e., no account has been taken of deaths of defence personnel.

POPULATION: NATURAL INCREASE (a), 1901 to 1944.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Australia.
MALES.									
1901–05..	51,179	34,332	16,628	12,149	8,283	7,955	–223	(b)	130,303
1906–10..	64,127	38,948	21,415	14,500	10,762	8,703	–264		158,191
1911–15..	77,070	46,160	27,497	18,673	12,730	9,386	–201	78	191,393
1916–20..	72,030	41,388	26,894	16,413	9,787	8,673	–125	75	175,135
1921–25..	80,860	49,254	28,941	16,721	10,284	8,543	–68	37	194,572
1926–30..	72,430	43,756	25,645	14,583	11,245	7,001	–131	175	174,704
1931–35..	51,566	25,286	20,627	8,686	8,576	5,810	–93	270	120,728
1936–40..	49,092	26,141	23,145	9,187	9,409	6,040	39	397	123,450
1937 ..	9,865	5,319	4,454	1,788	1,918	1,241	–4	78	24,659
1938 ..	9,446	5,610	4,445	1,946	2,029	1,308	2	60	24,846
1939 ..	9,441	4,949	4,616	1,871	1,985	1,247	..	107	24,216
1940 ..	10,289	5,463	5,067	2,034	1,801	1,208	27	97	25,986
1941 ..	11,187	6,892	5,524	2,334	2,220	1,268	3	124	29,552
1942 ..	10,698	6,882	5,260	2,201	2,046	1,409	–20	164	28,640
1943 ..	13,316	8,819	5,771	3,324	2,627	1,578	–3	143	35,575
1944 ..	15,866	9,498	7,113	3,630	2,880	1,362	19	154	40,522

(a) Excess of births over deaths.

(b) Part of New South Wales prior to 1911.

NOTE.—Minus sign (–) denotes excess of deaths over births.

POPULATION: NATURAL INCREASE (a)—continued.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Australia.
FEMALES.									
1901-05..	59,163	39,831	22,910	12,701	11,468	8,027	28	(b)	154,128
1906-10..	71,297	42,629	26,048	14,754	13,354	8,522	33	(b)	176,637
1911-15..	87,074	50,258	33,463	19,318	16,262	9,604	62	78	216,119
1916-20..	81,799	42,886	32,273	16,825	13,185	8,821	135	72	195,996
1921-25..	89,438	49,685	34,289	17,595	13,839	8,837	127	82	213,892
1926-30..	80,733	44,417	31,128	15,407	14,406	6,893	126	203	193,313
1931-35..	60,300	28,216	26,036	9,228	12,352	5,953	156	280	142,521
1936-40..	60,628	28,464	28,991	10,057	13,626	6,574	220	437	148,997
1937 ..	12,397	5,799	5,702	1,950	2,626	1,375	40	87	29,976
1938 ..	11,768	5,779	5,346	1,925	2,878	1,311	31	80	29,118
1939 ..	11,747	5,375	6,202	2,008	2,715	1,331	50	100	29,528
1940 ..	12,950	6,206	6,142	2,275	2,834	1,399	60	111	31,977
1941 ..	13,242	6,992	6,465	2,343	3,129	1,363	91	172	33,797
1942 ..	12,730	7,072	6,284	2,365	2,779	1,466	29	152	32,877
1943 ..	15,079	8,971	6,887	3,339	3,267	1,492	34	165	39,234
1944 ..	17,094	9,358	8,022	3,697	3,512	1,344	39	160	43,226

PERSONS.

1901-05..	110,342	74,163	39,538	24,850	19,751	15,982	-195	(b)	284,431
1906-10..	135,424	81,577	47,463	29,254	24,116	17,225	-231	(b)	334,828
1911-15..	164,144	96,418	60,960	37,991	28,992	18,990	-139	156	407,512
1916-20..	153,829	84,274	59,167	33,238	22,972	17,494	10	147	371,131
1921-25..	170,298	98,939	63,230	34,316	24,123	17,380	59	119	408,464
1926-30..	153,163	88,173	56,773	29,990	25,651	13,894	-	578	368,017
1931-35..	111,866	53,502	46,663	17,914	20,928	11,763	63	350	263,249
1936-40..	109,720	54,605	52,136	19,244	23,035	12,614	259	834	272,447
1937 ..	22,262	11,118	10,156	3,738	4,544	2,616	36	165	54,635
1938 ..	21,214	11,389	9,791	3,871	4,907	2,619	33	140	53,964
1939 ..	21,188	10,324	10,818	3,879	4,700	2,578	50	207	53,744
1940 ..	23,239	11,669	11,209	4,309	4,635	2,607	87	208	57,963
1941 ..	24,429	13,884	11,989	4,677	5,349	2,631	94	296	63,349
1942 ..	23,428	13,954	11,544	4,566	4,825	2,875	9	316	61,517
1943 ..	28,395	17,790	12,658	6,663	5,894	3,070	31	308	74,809
1944 ..	32,960	18,856	15,135	7,327	6,392	2,766	58	314	83,748

RATE OF NATURAL INCREASE (c)—PERSONS.

1901-05..	15.59	12.31	15.34	13.92	18.07	17.85	- 8.8	(b)	14.60
1906-10..	17.25	13.11	16.99	15.44	18.52	18.37	-12.6	(b)	15.93
1911-15..	18.27	13.91	18.61	17.55	18.76	19.63	- 7.6	13.71	17.05
1916-20..	15.69	11.65	16.74	14.51	14.56	17.46	0.43	12.23	14.57
1921-25..	15.47	12.32	15.87	13.28	13.69	16.14	3.13	6.84	14.34
1926-30..	12.51	10.10	12.84	10.58	12.63	12.85	-0.22	9.60	11.72
1931-35..	8.60	5.88	9.87	6.17	9.54	10.33	2.54	12.11	7.94
1936-40..	8.06	5.84	10.42	6.50	10.04	10.71	8.28	14.96	7.90
1937 ..	8.26	5.99	10.26	6.34	10.00	11.18	6.65	15.14	7.99
1938 ..	7.80	6.10	9.78	6.53	10.67	11.11	5.76	12.58	7.83
1939 ..	7.71	5.48	10.67	6.51	10.10	10.83	8.33	17.12	7.72
1940 ..	8.38	6.13	10.92	7.19	9.84	10.84	13.91	15.35	8.25
1941 ..	8.75	7.17	11.55	7.77	11.28	10.97	14.98	20.13	8.92
1942 ..	8.31	7.10	11.12	7.47	10.08	11.95	1.84	21.60	8.57
1943 ..	10.00	8.98	12.03	10.83	12.29	12.67	6.02	21.82	10.35
1944 ..	11.48	9.44	14.21	11.78	13.16	11.03	11.19	21.73	11.46

(a) Excess of births over deaths. (b) Part of New South Wales prior to 1911. (c) Excess of births over deaths per 1,000 mean annual population. (d) Revised rates based on mean population adjusted in accordance with the results of Census of 30th June, 1938.

NOTE.—Minus sign (—) denotes excess of deaths over births.

The table above shows the decline which has taken place in the rate of natural increase in all States of Australia since the beginning of the century. The decline is evident notwithstanding the stepping-up of the rate occasioned by increased births since the commencement of the 1939-45 War and the overstatement due to the omission of deaths of defence personnel. During the first five years of the present century the average increment to the population of Australia by this means was 56,886 persons per annum. The increment rose to a maximum of 81,693 persons per annum in 1921-25, but thereafter fell to 52,650 persons per annum in the quinquennium 1931-35, increasing during 1936-40 to 54,489. During 1940-44, the five complete war years, the average excess of births over civilian deaths was 68,277.

(ii) *Comparison with other Countries.* Notwithstanding its low birth-rate Australia has a higher rate of natural increase than most European countries, owing to the fact that its death-rate is very low. The following table gives a comparison between the rates of natural increase in 1939 for the several States of Australia and for the Dominion of New Zealand, with those of some of the principal countries for which such information is available. The year 1939 has been selected for purposes of comparison as figures for subsequent periods are based on population estimates the comparability of which is open to doubt because of the abnormal distribution of population during war-time. Corresponding annual rates for the period 1909-13 have also been appended. Comparisons with the earlier period show how general has been the fall in the rate of natural increase.

NATURAL INCREASE OF POPULATION : VARIOUS COUNTRIES.

INCREASE PER ANNUM PER 1,000 MEAN POPULATION.

State or Country.	1909-13.	1939.	Country.	1909-13.	1939.
Australasia—			Europe— <i>continued.</i>		
Tasmania ..	18.8	10.8	Switzerland ..	9.3	3.5
Queensland ..	17.9	10.7	England and Wales	10.7	3.3
Western Australia	18.1	10.1	Belgium ..	7.8	1.5
New Zealand ..	17.1	9.5	France ..	0.8	-0.9
Australia ..	16.7	7.7	Spain ..	9.3	-2.0
New South Wales	18.0	7.7			
South Australia ..	16.8	6.5	Asia—		
Victoria ..	13.6	5.5	Japan ..	13.1	8.7
Europe—					
Netherlands ..	15.1	12.0	Africa—		
Italy ..	12.8	10.1	Union of South		
Germany ..	12.8	(a) 8.0	Africa (whites only)	(b)	15.9
Denmark ..	13.9	7.7			
Northern Ireland ..	6.3	5.9	America—		
Norway ..	12.4	5.9	Canada ..	(b)	10.7
Ireland ..	6.3	4.9	United States ..	(b)	6.6
Sweden ..	10.4	3.8			
Scotland ..	10.7	4.5			

(a) Frontiers of 1937.

(b) Not available.

NOTE.—Minus sign (—) denotes decrease.

2. Net Migration.*—The other factor of increase in the population, namely, the excess of arrivals over departures, known as "net migration," is, from its nature, much more subject to variations than is the factor of "natural increase".

* The subject of migration is dealt with at some length later in this chapter.

Particulars of the increase by net migration are given below for quinquennial periods from 1901 to 1940 and annually for the eight years 1937-44. Disturbances in the migration records were caused by interstate troop movements, which prevented accurate count of civilians travelling interstate. The figures included in the table below have been adjusted to agree with the population estimates revised in the light of data obtained from the Civilian Register of June, 1943.

POPULATION : INCREASE BY NET MIGRATION, 1901 to 1944.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Australia.
MALES.									
1901-05..	15,671	37,971	495	11,031	28,127	1,771	697	(a)	7,177
1906-10..	11,157	9,400	12,291	10,590	711	5,784	366	(a)	37,999
1911-15..	38,483	1,568	13,037	4,263	189	9,599	1,050	90	40,375
1916-20..	23,150	18,205	3,614	7,920	3,782	67	551	30	48,519
1921-25..	35,660	37,760	18,834	14,244	15,375	5,630	17	1,199	117,459
1926-30..	37,524	7,849	11,584	2,230	19,069	3,668	870	2,259	73,257
1931-35..	1,646	5,951	6,195	3,654	4,215	1,384	24	3	10,676
1936-40(b)	7,574	11,913	5,249	4,988	2,501	793	2,787	1,632	20,873
1937 ..	3,147	1,958	1,061	984	675	795	49	177	2,962
1938 ..	2,011	1,617	1,137	8	233	79	182	611	5,704
1939 (b)..	1,948	572	2,523	165	869	482	406	557	6,228
1940 (b)..	3,352	11,778	253	3,217	68	690	..	594	5,298
1941 (b)..	3,773	11,561	3,287	1,962	1,662	2,611	183	209	1,798
1942 (b)..	7,695	1,578	6,501	626	882	744	102	198	3,236
1943 (b)..	2,638	2,658	4,054	284	1,526	705	81	531	1,109
1944 (b)..	579	237	100	20	38	1	..	..	935
FEMALES.									
1901-05..	1,566	21,984	2,398	8,448	22,293	726	81	(a)	9,616
1906-10..	9,390	10	7,780	4,403	1,867	4,023	148	(a)	19,279
1911-15..	48,612	25,051	12,054	5,389	10,650	5,658	271	118	96,487
1916-20..	21,294	985	2,776	3,863	4,530	2,211	47	34	22,190
1921-25..	24,660	19,443	12,154	7,482	6,706	5,138	244	744	65,807
1926-30..	33,326	12,532	3,537	341	9,363	4,293	278	2,048	56,450
1931-35..	1,093	2,943	1,125	2,284	578	2,644	88	47	210
1936-40(b)	14,163	9,233	1,509	2,608	32	1,872	715	1,083	22,255
1937 ..	3,593	1,266	110	865	335	251	36	119	2,241
1938 ..	1,732	1,267	239	45	210	123	76	465	3,433
1939 (b)..	3,958	1,600	1,642	87	803	979	111	441	7,663
1940 (b)..	315	8,664	930	604	740	1,078	..	615	8,102
1941 (b)..	1,633	7,603	240	1,810	2,030	1,702	640	218	3,386
1942 (b)..	2,802	3,570	3,348	974	742	1,423	541	154	2,930
1943 (b)..	1,848	1,848	1,939	158	1,235	318	99	165	162
1944 (b)..	204	204	729	38	69	4	..	..	1,248

(a) Part of New South Wales prior to 1911.

(b) Excludes troop movements.

NOTE.—Minus sign (—) indicates the excess of departures over arrivals.

POPULATION : INCREASE BY NET MIGRATION—*continued.*

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Australia.
PERSONS.									
1901-05..	17,237	-59,955	-1,903	-19,479	50,420	-2,497	-616	(a)	-16,793
1906-10..	20,547	9,410	20,071	14,993	2,578	-9,807	-514	(a)	57,278
1911-15..	87,095	26,619	25,091	1,126	10,839	-15,257	1,321	28	136,862
1916-20..	44,444	19,190	6,390	11,783	-8,312	-2,278	-504	-4	70,709
1921-25..	60,320	57,203	30,988	21,726	22,081	-10,768	-227	1,943	183,266
1926-30..	70,850	20,381	15,121	-2,571	28,432	-7,961	1,148	4,307	129,707
1931-35..	-553	-3,008	7,320	-5,938	-4,793	-4,028	64	(b)	50-10,886
1936-40(c)	21,737	21,146	6,758	-7,596	-2,469	-2,665	3,502	2,715	43,128
1937 ..	6,740	-3,224	1,171	-1,849	1,010	1,046	13	(b)	296 5,203
1938 ..	3,743	2,884	898	37	443	-202	258	1,076	9,137
1939 (c)..	5,906	2,172	4,165	-78	1,672	-1,461	517	998	13,891
1940 (c)..	-3,037	20,442	1,183	-3,821	-808	-1,768	..	1,209	13,400
1941 (c)..	-5,406	19,164	-3,527	3,772	-3,692	-4,313	-823	9	5,184
1942 (c)..	10,497	5,148	-9,849	1,600	1,624	-2,167	-643	-44	6,166
1943 (c)..	-4,486	4,506	5,993	-442	-2,761	-1,023	180	-696	1,271
1944 (c)..	-783	-441	-829	-18	-107	-5	..	..	-2,183

(a) Part of New South Wales prior to 1911.

(b) See letterpress on p. 461. The following

are revised estimates:—1931-35, 492; 1937, 472.

(c) Excludes troop movements.

NOTE.—Minus sign (—) indicates the excess of departures over arrivals.

There was a loss of population by migration in the first five years of the present century; in the next five quinquennial periods there were varying gains which averaged about 115,000 per quinquennium.

In the five years ended 1935 there was a net emigration of 10,886 and in the five years ended 1940 the net immigration was 43,128.

3. Total Increase.—The total increase of the population is obtained by the combination of the natural increase with the net migration, and, in the case of the years 1942 to 1944, with deaths of defence personnel.

The total increment to the population from the beginning of 1861 to the end of 1944 was 6,204,413 while that from 1901-44 was 3,575,659. The annual results for the last eight years are shown below, together with quinquennial figures from 1901 to 1940.

POPULATION : TOTAL INCREASE, 1901 to 1944.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Australia.
MALES.									
1901-05..	66,850	-3,639	17,123	1,118	36,410	6,184	-920	(a)	123,126
1906-10..	75,284	48,348	33,706	25,090	11,473	2,919	-630	(a)	196,190
1911-15..	115,553	47,728	40,534	14,410	12,919	-213	849	-12	231,768
1916-20..	95,180	59,593	30,508	24,333	6,005	8,606	-676	105	223,654
1921-25..	116,520	87,014	47,775	30,965	25,659	2,913	-51	1,236	312,031
1926-30..	109,954	51,605	37,229	12,353	30,314	3,333	739	2,434	247,961
1931-35..	49,920	19,335	26,822	5,032	4,361	4,426	-117	273	110,052
1936-40(b)	56,666	38,054	28,394	-4,199	6,908	5,247	2,826	2,029	144,323
1937 ..	13,012	3,361	5,515	804	2,593	2,036	45	255	27,621
1938 ..	11,457	7,227	5,582	1,938	2,262	1,229	184	671	30,550
1939 (b)..	11,389	5,521	7,139	1,706	2,854	765	406	664	30,444
1940 (b)..	6,937	17,241	5,320	-1,183	1,733	518	27	691	31,284
1941 (b)..	7,414	18,453	2,237	4,296	558	-1,343	-180	-85	31,350
1942(b)(c)	15,592	6,174	-2,383	1,885	2,046	427	-106	-24	23,611
1943(b)(c)	8,514	9,909	8,738	2,352	544	733	70	-388	30,472
1944(b)(c)	13,109	7,514	6,059	3,048	2,276	1,169	15	154	33,344

(a) Part of New South Wales prior to 1911.

(b) Unadjusted for movement of defence personnel

(c) Includes recorded deaths of defence personnel. See letterpress page 455.

NOTE.—Minus (—) denotes decrease.

POPULATION: TOTAL INCREASE, 1901 to 1944—continued.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Australia.
FEMALES.									
1901-05..	60,729	17,847	20,512	4,253	33,761	7,301	109	(a)	144,512
1906-10..	80,687	42,639	33,828	19,157	15,221	4,499	—	115	(a) 195,916
1911-15..	135,686	75,309	45,517	24,707	26,912	3,946	333	196	312,606
1916-20..	103,093	43,871	35,049	20,688	8,655	6,610	182	38	218,186
1921-25..	114,098	69,128	46,443	25,077	20,545	3,699	—	117	826 279,699
1926-30..	114,059	56,949	34,665	15,066	23,769	2,600	404	2,251	249,763
1931-35..	61,393	31,159	27,161	6,944	11,774	3,309	244	327	142,311
1936-40(c)	74,791	37,697	30,500	7,449	13,658	4,702	935	1,520	171,252
1937 ..	15,990	4,533	5,812	1,085	2,961	1,626	4	206	32,217
1938 ..	13,500	7,046	5,107	1,970	3,088	1,188	107	545	32,551
1939 (c)..	15,705	6,975	7,844	2,095	3,518	352	161	541	37,191
1940 (c)..	13,265	14,870	7,072	1,671	2,094	321	60	726	40,079
1941 (c)..	11,609	14,595	6,225	4,153	1,099	—	339	549	390 37,183
1942(c)(d)	15,527	10,637	2,932	3,337	3,519	43	—	512	306 35,789
1943(c)(d)	13,215	10,803	8,820	3,176	2,028	1,172	133	..	39,347
1944(c)(d)	16,877	9,141	7,288	3,653	3,438	1,334	39	160	41,930

PERSONS.

1901-05..	127,579	14,208	37,635	5,371	70,171	13,485	—	811	(a)	267,638
1906-10..	155,971	90,987	67,534	44,247	26,694	7,418	—	745	(a)	392,106
1911-15..	251,239	123,037	86,051	39,117	39,831	3,733	1,182	184		544,374
1916-20..	198,273	103,464	65,557	45,021	14,660	15,216	—	494	143	441,840
1921-25..	230,618	156,142	94,218	56,042	46,204	6,612	—	168	2,062	591,730
1926-30..	224,013	108,554	71,894	27,419	54,083	5,933	1,143	4,685	497,724	
1931-35..	111,313	50,494	53,983	11,976	16,135	7,735	127	(b)	600	252,363
1936-40(c)	131,457	75,751	58,894	11,648	20,566	9,949	3,761	3,549		315,575
1937 ..	29,002	7,894	11,327	1,889	5,554	3,662	49	(b)	461	59,838
1938 ..	24,957	14,273	10,689	3,908	5,350	2,417	291	1,216	63,101	
1939 (c)..	27,094	12,496	14,983	3,801	6,372	1,117	567	1,205	67,635	
1940 (c)..	20,202	32,111	12,392	488	3,827	839	87	1,417	71,363	
1941 (c)..	19,023	33,048	8,462	8,449	1,657	—	1,682	729	305	68,533
1942(c)(d)	31,119	16,811	549	5,222	5,565	470	—	618	282	59,400
1943(c)(d)	21,729	20,712	17,558	5,528	2,572	1,905	203	—	388	69,819
1944(c)(d)	29,986	16,655	13,347	6,701	5,714	2,503	54	314	75,274	

(a) Part of New South Wales prior to 1911. (b) See letterpress on p. 461. The following are revised figures:—1931-35, 1,042; 1937, 637. (c) Unadjusted for movement of defence personnel. (d) Includes recorded deaths of defence personnel. See letterpress page 455.

NOTE.—Minus (—) denotes decrease.

4. Percentage Rates of Increase.—(i) *States.* The annual percentage rates of increase of population of the several States of Australia in each of the years 1940 to 1944 inclusive were as follows:—

POPULATION: PERCENTAGE RATES OF INCREASE.

State or Territory.		Annual Percentage Rate of Increase of Population.				
		1940.	1941.	1942.	1943.	1944.
		%	%	%	%	%
New South Wales	..	0.73	0.68	1.11	0.77	1.05
Victoria..	..	1.70	1.72	0.86	1.05	0.84
Queensland	..	1.22	0.82	0.05	1.69	1.26
South Australia	..	0.08	1.41	0.86	0.90	1.08
Western Australia	..	0.82	0.35	1.17	0.54	1.18
Tasmania	..	0.35	—0.69	0.19	0.79	1.03
Northern Territory	..	1.40	—11.57	—11.10	4.10	1.05
Australian Capital Territory	..	11.18	2.17	1.96	—2.64	2.20
Australia ..	..	1.02	0.97	0.83	0.97	1.04

NOTE.—Minus sign (—) denotes decrease.

(ii) *Various Countries.* The table hereunder gives approximate percentage rates of increase of the population of Australia and its component States, in comparison with those for other countries :—

POPULATION : PERCENTAGE RATES OF INCREASE IN VARIOUS COUNTRIES.

State or Country.	Annual Percentage Rate of Increase of Population during period—						
	1901-06.	1906-11.	1911-16.	1916-21.	1921-26.	1926-31.	1931-36.
AUSTRALASIA—	%	%	%	%	%	%	%
Australia	1.38	2.04	1.87	2.07	2.11	1.50	0.76
New South Wales (a) ..	1.99	2.05	2.61	2.19	2.20	1.74	0.87
Victoria	0.17	1.70	1.38	1.68	2.00	1.18	0.53
Queensland	1.35	2.77	2.18	2.17	2.38	1.53	1.14
South Australia (b) ..	0.27	2.48	1.47	2.33	2.17	0.81	0.41
Western Australia ..	6.22	2.42	1.77	1.31	2.66	2.56	0.81
Tasmania	1.33	0.63	0.43	1.90	0.04	1.01	0.55
New Zealand	2.81	2.43	1.56	2.13	2.06	1.38	0.79
EUROPE—							
England and Wales ..	1.04	1.02	-0.84	1.81	0.64	0.44	0.42
Scotland	0.55	0.56	0.31	0.24	0.09	-0.21	0.50
Eire	-0.22	-0.06	-0.21	0.58	-0.60	-0.12	0.28
Belgium	1.26	0.69	0.53	-0.55	1.03	0.71	0.42
Denmark	1.12	1.26	1.20	2.13	1.01	0.67	0.84
France	0.15	0.06	-0.72	0.55	0.76	0.53	0.02
Germany	1.46	1.33	0.71	-1.60	0.37	0.55	0.58
Italy	0.52	0.80	1.16	0.22	0.91	0.31	0.63
Netherlands	1.53	1.22	1.72	1.16	1.53	1.06	1.26
Norway	0.51	0.73	1.01	1.14	0.65	0.42	0.46
Spain	0.52	0.87	0.66	0.82	0.65	0.89	1.46
Sweden	0.61	0.84	0.70	0.64	0.40	0.29	0.34
Switzerland	1.28	1.17	0.81	0.01	0.38	0.62	0.44
ASIA—							
Ceylon	1.62	1.20	1.71	1.28	2.30	1.18	1.34
Japan	1.29	1.08	1.42	0.37	1.42	1.48	0.77
AMERICA—							
Canada	2.99	2.99	2.20	1.81	1.33	1.97	1.23
United States of America	2.00	1.82	1.67	1.21	1.67	1.27	0.69

(a) Includes Australian Capital Territory.

(b) Includes Northern Territory.

NOTE.—Minus sign (—) denotes decrease.

(iii) *Variations in the Rates.* The annual percentage rate of increase of the population during the present century has averaged 1.52 per cent., but the results from year to year have deviated widely from this figure. In the following table the period 1900-39 has been arranged into certain defined groups of years according to the occurrence of influences seriously affecting the growth of population :—

POPULATION : PERIODICAL PERCENTAGE RATES OF INCREASE.

Period from 31st December—	Interval.	Increase during Period.	Average Annual Increase.	Average Annual Percentage Rate of Increase.		
				Natural Increase.	Net Migration.	Total.
	Years.	Million.	Thousand.	%	%	%
1900 to 1913 ..	13	1.13	87	1.59	0.53	2.04
1913 to 1923 ..	10	0.86	86	1.50	0.15	1.64
1923 to 1929 ..	6	0.68	113	1.27	0.64	1.88
1929 to 1939 ..	10	0.56	56	0.82	0.01	0.84

Up to 1913 the rate of natural increase was rising, and this factor, coupled with the impetus given to immigration from 1911 onwards, was responsible for the comparatively high annual rate of 2.04 per cent. during this period. The 1914-19 War was a dominating influence in the decade 1914-23, and its effects can be seen in the reduction of the rate

from 2.04 to 1.64 per cent. In the next span 1923-29 a more settled and prosperous era was experienced; migration was resumed on a large scale and, despite a further decline in the rate of natural increase owing to the persistent fall in the birth-rate, the annual rate of growth rose to 1.88 per cent. After 1929 came the economic depression, and immigration ceased—in fact Australia actually lost people through an excess of departures over arrivals in 1930, 1931, 1932 and 1935. The rate of natural increase also fell, and the rate of growth of the population receded to 0.84 per cent. per annum. With the outbreak of war in 1939, Australia entered a new phase in her demographic history, the full effects of which will not be seen for some time to come. The immediate effect of the war was to increase the number of marriages and to reverse the downward trend in fertility. The number of births increased each year from 1940 to 1944 and these increases more than offset the rise in deaths due to war casualties and higher civilian death rates. As might be expected, migration over these years was negligible.

If the population increased at the average rate of the present century, namely, 1.52 per cent., it would double itself in 46 years. It has been estimated, on the assumptions that the 1932-34 birth and death rates remain unchanged and that no increment to the population results from migration, that the average annual rates of natural increase would be for the period, 1933-53, 0.64 per cent.; 1933-63, 0.55 per cent. and 1933-73, 0.46 per cent. In this respect the experience in Australia would be very similar to that of many other countries as the result of the low birth-rate.

Rates of increase from 1860 to 1944 may be found for each State and Territory of Australia in *Demography Bulletin* No. 62, 1944.

§ 5. Density.

1. **General.**—From certain aspects population may be less significant in respect of its absolute amount than in its relation to the area of the country. Australia, with an area of 2,974,581 square miles, and a population on 31st December, 1944, of approximately 7,389,000 including about 47,000 full-blood aborigines, has a density of only 2.48 persons to the square mile, and is, therefore, the most sparsely populated of the civilized countries of the world. For the other continents the densities are approximately as follows:—Europe, 122; Asia, 73; Africa, 14; North and Central America, 21; and South America, 13. The population of Australia has thus about one-sixth of the density of South America and of Africa; about one-ninth of that of North and Central America; about one-thirtieth of that of Asia; and about one-fiftieth of that of Europe.

On account of the enormous area of Australia and the unsuitability for settlement of much of the country, the density of population must necessarily increase slowly. In Australia as a whole the figure has increased from 1.29 per square mile in 1901 to 2.48 in 1944. Victoria's density, however, has grown from 13.77 to 22.82, and that of New South Wales from 4.43 to 9.32 in the same period.

A map showing the density of population throughout Australia at the 1933 Census appears on page 458 of this chapter. When comparing the density of population of the several States consideration should be given to the average annual rainfall distribution in each State as an indication of the climatic influence upon probable population numbers. The area of New South Wales receiving less than 10 inches of rainfall is 20 per cent.; Victoria, nil; Queensland, 13 per cent.; South Australia, 83 per cent.; Western Australia, 58 per cent.; Tasmania, nil; and Australia, 38 per cent.

Particulars concerning the number and density of the population of the most important countries of the world at 31st December, 1939, are given in the following table. These figures have been taken from the *Statistical Year Book of the League of Nations* 1942-44. In some instances, more particularly in the cases of Asia and Africa, the numbers must be considered as rough approximations only.

POPULATION OF THE WORLD : NUMBER AND DENSITY, 1939.

Country.	Population. ('000 omitted)	Density. (a)	Country.	Population. ('000 omitted)	Density. (a)
EUROPE.			AFRICA.		
U.S.S.R. (European) ..	134,400	58.0	Nigeria and Protectorate (f) ..	20,642	55.3
Germany (b) ..	79,700	354.2	Egypt ..	16,650	43.1
United Kingdom ..	47,778	508.3	French West Africa ..	14,800	8.1
Italy (c) ..	44,928	343.0	Belgian Congo ..	10,356	11.5
France ..	41,950	196.9	Union of South Africa ..	10,251	21.7
Poland ..	35,090	233.9	Algeria ..	7,600	8.9
Spain (incl. Canary Is.) ..	25,600	131.3	French Morocco ..	6,600	42.9
Rumania ..	20,045	175.1	Anglo-Egyptian Sudan ..	6,500	6.7
Yugoslavia ..	15,703	163.6	Abyssinia ..	5,500	15.9
Hungary ..	10,840	240.9	Other ..	59,001	..
Netherlands ..	8,834	679.5	Total Africa ..	157,900	13.5
Belgium ..	8,396	699.7	NORTH AND CENTRAL AMERICA.		
Portugal ..	7,620	217.7	United States of America ..	131,416	43.4
Greece ..	7,200	144.0	Mexico ..	19,380	25.5
Sweden ..	6,341	36.7	Canada ..	11,368	3.1
Bulgaria ..	6,308	157.7	Cuba ..	4,253	96.7
Switzerland ..	4,206	262.9	Other ..	17,891	..
Denmark ..	3,825	225.0	Total North and Central America ..	184,308	21.3
Finland ..	3,684	24.9	SOUTH AMERICA.		
Elre ..	2,946	109.1	Brazil ..	40,900	12.4
Norway ..	2,937	23.5	Argentina ..	13,132	12.2
Other ..	18,619	..	Colombia ..	8,986	20.4
Total Europe ..	536,950	121.8	Peru ..	7,000	14.5
ASIA.			Chile ..	4,940	17.2
China and Dependencies ..	450,000	105.0	Other ..	13,722	..
British India and Indian States ..	382,000	241.6	Total South America ..	88,680	12.8
Japan and Dependencies ..	104,120	397.4	OCEANIA, ETC.		
Netherlands Indies (d) ..	69,435	94.5	Australia (g) ..	7,049	2.4
U.S.S.R. (Asiatic) ..	36,000	6.1	New Zealand and Dependencies ..	1,660	16.0
French Indo-China ..	23,700	82.9	Territory of New Guinea ..	670	7.4
Philippine Islands ..	16,300	143.0	Hawaii ..	421	60.1
Burma ..	16,600	70.9	Papua ..	300	3.3
Turkey (e) ..	16,240	56.6	Fiji ..	215	30.7
Iran ..	15,000	23.6	Other ..	485	..
Thailand ..	15,600	78.0	Total Oceania, etc. ..	10,800	3.3
Afghanistan ..	7,000	27.9	SUMMARY.		
Arabia ..	7,000	7.0	Europe ..	536,950	121.8
Ceylon ..	5,922	236.9	Asia ..	1,190,000	73.4
Nepal ..	5,600	103.7	Africa ..	157,900	13.5
Other ..	19,483	..	America, North and Central ..	184,308	21.3
Total Asia ..	1,190,000	73.4	America, South ..	88,680	12.8
			Oceania, etc. ..	10,800	3.3
			Total ..	2,168,638	42.3

(a) Number of persons per square mile.

(c) Includes Albania. (d) Includes Dutch New Guinea.

(e) Includes British Cameroons.

(b) Includes Austria and Sudeten Territory.

(f) Includes 52,000 full-blood aborigines.

(g) Excludes European Territory—

2. Position of the British Empire.—The approximate relationship of the British Empire to the world as a whole in regard to its area and population is given hereunder :—

AREA AND POPULATION : BRITISH EMPIRE AND WORLD.(a)

Particulars.	The World.	British Empire.
Area in square miles (excluding Polar Circles) ..	51,235,000	12,502,127
Population ..	2,168,638,000	560,095,000
Population per square mile ..	42.33	44.80

(a) Statistical Year Book of the League of Nations, 1942-44, and The Statesman's Year Book, 1945.

§ 6. General Characteristics.

1. Sex Distribution.—(i) States. The number of males to each hundred females has been adopted as a measure of the "masculinity" of the population. On pp. 163-5 in the second issue of the Official Year Book a table was included showing the masculinity of the population of each of the States for each year from 1796 to 1907. In the fifth issue, on p. 123, the figures in this table for the years 1901 to 1907 were modified in accordance with the results of the 1911 Census.

With the exception of some dislocation arising from the 1914-19 War there has been a continuous diminution of the masculinity of the population. In 1900, the masculinity was 110.55; in 1910, 107.87 and in 1920, 103.47. After 1921, however, the masculinity tended to rise until 1927 (104.54), since when it has gradually fallen to 100.77 in 1944.

A reduction in the masculinity of a population may be expected where persons in the higher age-groups constitute an increasing proportion of the total population. This is a direct consequence of the greater longevity of females. A falling birth-rate tends to reduce masculinity while a rising birth-rate tends to increase it.

The following table shows the masculinity of the population at quinquennial periods from 1901 to 1940 and for each year from 1941 onwards:—

POPULATION : MASCULINITY, 1901 to 1944.

(Number of Males per 100 Females.)

As at 31st December—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Aust.
1901	110.12	101.16	125.78	102.71	155.69	107.90	593.32	(a)	110.15
1905	111.05	97.60	121.75	101.65	141.35	106.09	496.76	(a)	108.65
1910	109.23	98.71	119.02	103.12	132.90	104.14	486.32	(a)	107.87
1915	108.66	95.07	114.74	98.26	117.23	99.77	400.33	109.75	103.55
1920	104.31	97.38	112.00	99.83	114.55	101.67	270.04	116.70	103.47
1925	104.09	99.71	110.94	102.02	115.76	100.90	297.61	132.37	104.24
1930	103.39	99.14	110.66	100.97	117.17	101.53	263.66	118.69	103.85
1935	102.36	97.00	109.96	100.29	112.69	102.46	216.41	116.02	102.71
1940	100.98	97.83	108.90	98.92	110.53	102.83	208.62	116.11	101.81
1941	100.67	98.25	107.99	98.98	110.24	102.00	273.33	108.32	101.67
1942	100.67	97.82	106.89	98.52	109.43	102.32	465.31	103.40	101.23
1943	100.33	97.76	106.75	98.27	108.71	101.94	363.16	98.02	101.01
1944	100.07	97.62	106.42	98.10	108.09	101.78	352.17	97.98	100.77

(a) Part of New South Wales prior to 1911.

(ii) *Various Countries.* The difference between young and old countries in the masculinity of their population is clearly illustrated by the comparisons furnished in the following table. For countries which were belligerents at the outset of the 1939-45 War the latest available figures prior to the outbreak of hostilities are given and for other countries figures for 1939 or the nearest year thereto. There is some doubt as to the comparability of figures for subsequent years.

POPULATION : MASCULINITY IN VARIOUS COUNTRIES.

Country.	Year.	Number of Males to each 100 Females.	Country.	Year.	Number of Males to each 100 Females.
Canada	1938	106.5	Norway	1939	96.3
Eire	1936	105.0	Spain	1940	95.9
Union of South Africa (a)	1939	102.8	Germany	1939	95.8
New Zealand	1939	102.3	Hungary	1939	95.7
Australia	1939	102.1	Poland	1938	95.3
United States of America	1940	101.1	U.S.S.R. (Russia) ..	1939	94.8
Japan	1939	100.4	Northern Ireland ..	1939	94.7
Netherlands	1939	99.6	Italy	1936	94.3
Sweden	1939	98.2	France	1939	93.0
Belgium	1938	98.0	Scotland	1938	92.9
Denmark	1939	97.4	England and Wales ..	1938	92.4

(a) White population only.

2. *Age Distribution.*—The age distribution of the population is obtained only at a Census. The following table shows the variation which took place in the age constitution of the population during the 12½ years following the 1921 Census. Reference to the graph on page 459 will show regular wave-like movements in the curves depicting age

constitution at various Censuses owing to fluctuations in the birth-rate and in migration. The curve of age constitution for the 1921 Census showed definite troughs in the age-group 0 to 4 years owing to the decline in the birth-rate during the war years, and in the age-group 20 to 24 years owing to the decline in the birth-rate in the late 'nineties of last century and to the loss of young adult males during the 1914-19 War. At the 1933 Census these same troughs were still prominent, but owing to the lapse of time they then showed at the later ages of 12 to 16 years and 32 to 36 years. But for all ages below about 10 years the curve had been depressed to an extent which was even more marked than in 1921. This was due to a serious decline in the birth-rate, which was intensified in the years immediately prior to 1933 by the economic depression.

Of the 6,629,839 persons enumerated at the 1933 Census, 8.6 per cent. were under 5 years of age; 9.5 per cent. were 5 years of age and under 10 years; 9.4 per cent. from 10 to 14 years; 9.3 per cent. 15 to 19 years; and 38.6 per cent. were under age 21. At the 1921 Census 11.0 per cent. were under 5 years; 11.0 per cent. 5 to 9 years; 9.7 per cent. 10 to 14 years; 8.6 per cent. 15 to 19 years; and 41.9 per cent. under 21 years of age.

The effect of the decline in the birth-rate on the number of young lives in the population is indicated by comparing the experience during the intercensal period 1921-33 with that for the previous intercensal period 1911-21. Whereas during the earlier period of ten years the population under 10 years of age in Australia increased by 213,822 persons, there was actually a decline of 693 in the numbers of this age-group during the subsequent 12½ years to 1933. Had the average effective birth-rate which prevailed between the Censuses of 1911 and 1921 continued until 30th June, 1933, there would have been about 350,000 more children under 10 years of age in Australia than were actually enumerated at the Census.

On the other hand, the number of persons aged 65 years and over in Australia at 30th June, 1933, was 188,630 more than at the previous Census, as compared with an increase of 48,813 during the previous intercensal period 1911-21.

POPULATION: GRADUATED AGE DISTRIBUTION, AUSTRALIA, 1921 AND 1933.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Age last Birthday. (Years).	Census, 4th April, 1921.			Census, 30th June, 1933.			Increase 1921-33.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
0-4	305,397	294,319	599,716	290,461	278,502	568,963	- 30,753
5-9	302,481	294,836	597,317	318,937	308,440	627,377	30,060
10-14	266,289	260,556	526,845	317,524	307,693	625,222	98,377
15-19	236,268	230,424	466,692	311,790	303,619	615,409	148,717
20-24	219,013	211,680	430,693	297,993	286,612	584,605	133,912
25-29	226,692	237,497	464,189	277,461	256,509	533,970	69,781
30-34	227,512	221,988	449,500	251,513	237,663	489,176	39,676
35-39	198,870	190,405	389,275	228,658	237,498	466,156	76,881
40-44	168,889	160,437	329,326	229,828	226,473	456,301	126,975
45-49	146,203	136,520	282,723	209,329	199,389	408,718	125,995
50-54	134,828	118,982	253,810	171,687	162,780	334,467	80,657
55-59	117,275	100,550	217,825	132,320	128,857	261,177	43,352
60-64	89,502	77,501	167,003	114,864	113,744	228,608	61,605
65-69	56,530	49,184	105,714	92,940	90,493	183,433	77,719
70-74	33,325	31,849	65,174	66,015	64,282	130,297	65,123
75-79	19,586	20,373	39,959	35,929	36,259	72,188	32,229
80-84	9,553	10,334	19,887	13,857	15,740	29,597	9,710
85-89	3,658	4,198	7,856	4,643	6,228	10,871	3,015
90-94	848	1,064	1,912	1,147	1,607	2,754	842
95-99	129	157	286	100	302	492	206
100-104	22	10	32	25	33	58	26
Total	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839	1,194,105
Under 21 years	1,154,908	1,125,025	2,280,023	1,300,253	1,258,310	2,558,563	278,540
21 years and over	1,607,872	1,547,839	3,155,711	2,066,858	2,004,418	4,071,276	915,565
Total	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839	1,194,105

NOTE.—Minus sign (—) denotes decrease.

The ages recorded at a Census are not free from error and are therefore subjected to a process of graduation, or smoothing, to eliminate the effects of the tendency to mis-statement at certain ages. These graduated results have been used in the table on page 479.

Owing to the striking changes which are taking place in the age distribution of the population of Australia, consequent upon the fluctuating birth-rate and the increasing expectation of life, efforts have been made to estimate these particulars for later years by applying to the age distribution at the Census the subsequent experience of births, deaths and migration. The results of the latest available tabulation are shown in the following summary.

POPULATION : ESTIMATED AGE DISTRIBUTION, AUSTRALIA, 30th JUNE, 1941.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Age last Birthday. (Years.)	30th June, 1941.		
	Males.	Females.	Persons.
0-4	300,742	288,849	589,591
5-9	265,115	255,568	520,683
10-14	307,825	296,049	603,874
15-19	323,983	314,995	638,978
20-24	307,303	298,101	605,404
25-29	307,521	299,939	607,460
30-34	287,188	273,667	560,855
35-39	257,073	238,210	495,283
40-44	236,470	235,609	472,079
45-49	221,398	228,564	449,962
50-54	212,961	211,328	424,289
55-59	171,719	169,251	340,970
60-64	133,856	136,584	270,440
65-69	96,779	102,539	199,318
70-74	75,285	82,195	157,480
75-79	45,949	51,079	97,028
80-84	22,813	27,346	50,159
85-89	6,249	8,383	14,632
90-94	1,286	2,044	3,330
95-99	195	274	469
100-104	9	13	22
Total	3,581,719	3,520,587	7,102,306
Under 21 years	1,264,472	1,219,767	2,484,239
21 years and over	2,317,247	2,300,820	4,618,067
Total	3,581,719	3,520,587	7,102,306

Since the publication of Official Year Book No. 34 a revision in the basis of the estimates in the table above has been found necessary. Results of the 1939 National Register indicated that the graduated figures for the 1933 Census smoothed out features of the age distribution which were not due merely to mis-statements. The basis of estimate was therefore altered to the "adjusted" 1933 Census results, modified in the light of the results of the National Register. In consequence, the estimates here shown are not comparable with those previously published.

The next table shows the change which has been taking place in the age constitution of the population of Australia since 1871. Each successive Census except 1921 has revealed a larger percentage of the population over 15 years of age than was recorded at the previous Census. This movement, as previously mentioned, was greatly accentuated during the period 1921-33 owing to the serious decline in the birth-rate

which was partly the outcome of the economic depression. This change resulted during the intercensal period in an increase in the average age of males in Australia from 28.54 to 30.46 years and of females from 28.03 to 30.64 years. From 1911 to 1921 the average age for males and the average age for females were rapidly approaching equality with the former still somewhat higher than the latter. By 1933 the average age of females actually exceeded that of males. The higher average age of males in earlier years was due to a relatively larger proportion of the population being immigrants, a majority of whom were males. As the proportion of native-born increases the tendency is for females, whose average life is longer, to exceed males both in number and average age.

POPULATION : AGE DISTRIBUTION, AUSTRALIA, 1871 TO 1933.

Census Year.	Males.				Females.				Persons.			
	Under 15 years.	15 and under 65.	65 and over.	Total.	Under 15 years.	15 and under 65.	65 and over.	Total.	Under 15 years.	15 and under 65.	65 and over.	Total.
	%	%	%	%	%	%	%	%	%	%	%	%
1871	38.84	59.11	2.05	100	46.02	52.60	1.38	100	42.09	56.17	1.74	100
1881	36.36	60.81	2.83	100	41.86	56.03	2.11	100	38.89	58.61	2.50	100
1891	34.80	62.01	3.19	100	39.38	58.09	2.53	100	36.92	60.19	2.89	100
1901	33.89	61.80	4.31	100	36.51	59.88	3.61	100	35.14	60.88	3.98	100
1911	30.84	64.82	4.34	100	32.52	63.28	4.20	100	31.65	64.08	4.27	100
1921	31.64	63.88	4.48	100	31.79	63.83	4.38	100	31.71	63.86	4.43	100
1933	27.53	66.09	6.38	100	27.42	65.99	6.59	100	27.48	66.04	6.48	100

3. **Conjugal Condition.**—Of the total population of Australia at the 1933 Census, 55.5 per cent. had never married; 39.2 per cent. were married; 5.0 per cent. widowed; and 0.3 per cent. divorced. Since the 1921 Census the number never married had increased by 15.4 per cent.; those married by 29.8 per cent.; the widowed by 37.9 per cent.; and the divorced by 148 per cent.

The relatively low rate of increase in the number of single persons under age 15 is caused by the falling birth-rate. At 30th June, 1933, the number of males aged 15 years and over who had never married was 193,139 more than the females, and the excess of males was 40,721 greater than at the previous Census.

The divorce-rate for the period 1911–20 was 8.1 per 10,000 existing marriages, but increased to nearly double (15.5) during the decennium 1921–1930. During the intercensal period widowed females increased in number by 65,700, and at a higher percentage rate of increase (39.9) than the widowed males (33.3) during the same period. Actually there were more than twice as many widowed females as widowed males in Australia at 30th June, 1933. This disparity is the result of two influences. The first is the greater longevity of females coupled with the usually younger age at marriage; and the second is that a larger proportion of males cancel their widowhood by remarriage.

The numbers of divorced males and females in this table differ slightly from those given on p. 227 where the conjugal condition of those for whom particulars were not given at the Census have been distributed proportionally among the various groups.

POPULATION : CONJUGAL CONDITION, AUSTRALIA, 1921 AND 1933.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Conjugal Condition.	Census, 4th April, 1921.			Census, 30th June, 1933.			Increase 1921–33
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Never Married—							
Under age 15 ..	875,098	849,906	1,725,004	926,924	894,643	1,821,567	96,563
Age 15 and over ..	801,797	649,379	1,451,176	1,018,587	825,448	1,844,035	392,859
Total	1,676,895	1,499,285	3,176,180	1,945,511	1,720,091	3,665,602	489,422
Married	999,274	999,388	1,998,662	1,299,693	1,293,922	2,593,615	594,953
Widowed	73,341	164,480	237,821	97,775	230,180	327,955	90,134
Divorced	4,230	4,298	8,528	10,251	10,862	21,113	12,585
Not Stated	9,130	5,413	14,543	13,881	7,673	21,554	7,011
Total	1,762,870	1,672,864	3,435,734	2,367,111	2,262,728	4,629,839	1,194,105

4. **Dependent Children under 16 years of Age.**—At the 1933 Census 804,695 males and 61,417 females stated they had children under 16 years of age dependent on them at 30th June, 1933, the total number of dependent children under age 16 claimed being 1,919,859, of whom 1,811,247 or 94.3 per cent. were dependent on males and 108,612 or 5.7 per cent. were dependent on females. This represented an average of 2.3 for each male with dependent children and 1.8 for each female with dependent children. For each adult male in Australia there was an average of 0.88 dependent children, and for each male breadwinner (excluding pensioners) an average of 0.81 dependent children under 16 years of age.

Thirty-eight per cent. of the males with dependent children under 16 years of age had one dependent child; 29 per cent. two children; 16 per cent. three children; 9 per cent. four children; 4 per cent. five children; and 4 per cent. more than five children. Of the females with dependent children under 16 years of age, 57 per cent. had one dependent child; 24 per cent. two children; 11 per cent. three children; 5 per cent. four children; 2 per cent. five children; and 1 per cent. more than five children.

POPULATION : PERSONS WITH DEPENDENT CHILDREN UNDER SIXTEEN YEARS OF AGE, AUSTRALIA, 1933 CENSUS.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Number of Dependent Children.	Number of Persons with Dependent Children.			Total Number of Children Dependent on—		
	Males.	Females.	Persons.	Males.	Females.	Persons.
1	306,695	34,823	341,518	306,695	34,823	341,518
2	233,167	14,631	247,798	466,334	29,262	495,596
3	131,646	6,724	138,370	394,938	20,172	415,110
4	69,485	3,067	72,552	277,940	12,268	290,208
5	34,676	1,337	36,013	173,380	6,685	180,065
6	17,270	557	17,827	103,620	3,342	106,962
7	7,497	185	7,682	52,479	1,295	53,774
8	2,931	75	3,006	23,448	600	24,048
9	964	15	979	8,676	135	8,811
10	281	3	284	2,810	30	2,840
11	69	..	69	759	..	759
12	14	..	14	168	..	168
Total ..	804,695	61,417	866,112	1,811,247	108,612	1,919,859

5. **Orphanhood.**—The number of children under 16 years of age in Australia at 30th June, 1933, totalled 1,941,050, of whom 51 per cent. were males and 49 per cent. females. Of all children for whom particulars were stated, 94.0 per cent. had both parents living; 3.6 per cent. were without father living; 2.1 per cent. without mother; and 0.3 per cent. were bereft of both parents.

POPULATION : ORPHANHOOD OF CHILDREN UNDER SIXTEEN YEARS OF AGE, AUSTRALIA, 1933 CENSUS.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Particulars.	Males.	Females.	Persons.
Both Parents Living	915,707	884,174	1,799,881
Father Dead	34,642	33,998	68,640
Mother Dead	20,204	19,642	39,846
Both Parents Dead	3,144	2,713	5,857
Not Stated	13,813	13,013	26,826
Total	987,510	953,540	1,941,050

6. Religion.—At the 1921 Census 92,258 persons in Australia, or 1.7 per cent., gave no reply to this question, but at the 1933 Census, when the public was informed there was no legal obligation to answer this question, 848,948 persons, or 12.8 per cent., gave no reply. Thus 14.0 per cent. of the male and 11.5 per cent. of the female population of Australia did not state their religion.

The greatest numerical increase during the intercensal period was recorded by the Church of England, followed by the Roman Catholic and Catholic undefined, which may be grouped without serious error as the latter term usually signified Roman Catholic. Then followed Presbyterian and Methodist. The greatest proportional increases, however, were recorded by the Christian Scientist, Greek Catholic and Seventh Day Adventist denominations, whilst the greatest proportional decreases were experienced by the Australian Church, Quakers and Latter Day Saints.

Ninety-nine per cent. of those who stated their religion professed the Christian faith as compared with 98 per cent. at the 1921 Census. Since the previous Census the number who stated they were of non-Christian religion decreased by 20 per cent., and those specifically stating they had no religion decreased by 43 per cent. These comparisons with the 1921 figures, however, need to be interpreted with some care, in view of the fact that at the 1933 Census so large a proportion of the population gave no reply to this question.

POPULATION : RELIGION, AUSTRALIA, 1921 AND 1933.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Religion.	Census, 4th April, 1921.			Census, 30th June, 1933.			Increase, 1921-33.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Christian—							
Baptist	49,194	56,509	105,703	49,654	56,220	105,874	171
Brethren	3,493	6,532	12,025	4,501	5,542	10,043	— 1,982
Catholic, Greek	3,938	1,434	5,372	8,435	3,476	11,911	6,539
Catholic, Roman	565,029	568,973	1,134,002	577,997	583,458	1,161,455	27,453
Catholic, undefined	20,082	18,577	38,659	63,861	63,681	127,542	88,883
Church of Christ	24,680	29,894	54,574	28,820	33,934	62,754	8,180
Church of England	1,212,772	1,160,223	2,372,995	1,297,589	1,267,529	2,565,118	192,123
Congregational	34,931	39,582	74,513	39,411	34,791	74,202	— 9,311
Lutheran	31,027	25,892	57,519	32,569	28,234	60,803	3,284
Methodist	306,785	325,844	632,629	331,602	352,420	684,022	51,393
Presbyterian	322,072	314,002	636,974	356,743	356,486	713,229	76,255
Protestant, undefined	37,309	29,803	67,112	37,750	35,014	72,764	5,652
Salvation Army	14,584	17,005	31,589	14,297	16,913	31,210	— 379
Seventh Day Adventist	4,640	6,665	11,305	5,992	7,973	13,965	2,660
Other	16,508	16,162	32,670	19,605	22,241	41,846	9,176
Total Christian	2,649,644	2,617,997	5,267,641	2,859,826	2,867,912	5,727,738	460,097
Non-Christian—							
Buddhist	1,945	120	2,065	640	95	735	— 1,330
Chinese	3,512	79	3,591	298	7	305	— 3,286
Confucian	2,536	156	2,692	772	15	787	— 1,905
Hebrew	11,392	10,223	21,615	12,183	11,370	23,553	1,938
Mohammedan	2,647	221	2,868	1,668	209	1,877	— 991
Other	1,896	678	2,574	865	348	1,213	— 1,361
Total Non-Christian	23,928	11,477	35,405	16,426	12,044	28,470	— 6,935
Indefinite	13,096	6,790	19,886	8,133	4,896	13,029	— 6,857
No Religion	16,022	4,522	20,544	8,969	2,685	11,654	— 8,890
No Reply	60,180	32,078	92,258	473,757	375,291	848,948	756,690
Total	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839	1,194,105

NOTE.—Minus sign (—) denotes decrease.

7. Birthplace.—At the 1933 Census 86.3 per cent. of the population was native-born as compared with 84.5 per cent. at the 1921 Census, the number of native-born having increased by 25 per cent. while the immigrant population increased by 7 per cent. only.

Although the number born in the British Isles increased by 39,055 or 5.8 per cent., they were equivalent to only 10.7 per cent. of the total population as compared with 12.4 per cent at the previous Census. Those born in other European countries increased by 24,155 or 34.0 per cent., and represented 1.4 per cent. of the total population of Australia as compared with 1.3 per cent. in 1921. The number of Asiatic birthplace decreased by 5,733 or 18.9 per cent. during the intercensal period, and was equivalent to only 0.4 per cent. of the total population as compared with 0.6 per cent. at the previous Census.

Of those not born in Australia, 57 per cent. were males and 43 per cent. females. Fifty-five per cent. of those born in the British Isles and 72 per cent. of those born in other European countries were males.

POPULATION : BIRTHPLACES, AUSTRALIA, 1921 AND 1933.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Birthplace.	Census, 4th April, 1921.			Census, 30th June, 1933.			Increase, 1921-33.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Australia	2,273,999	2,307,664	4,581,663	2,848,282	2,878,284	5,726,566	1,144,903
New Zealand	20,002	18,609	38,611	23,837	22,126	45,963	7,352
Other Australasian	315	209	524	468	306	774	250
Total Australasia	2,294,316	2,326,482	4,620,798	2,872,587	2,900,716	5,773,303	1,152,505
England	246,134	199,990	446,124	268,849	217,982	486,831	40,707
Wales	7,845	5,645	13,490	8,492	5,094	14,486	996
Scotland	60,419	48,337	108,756	73,488	59,001	132,489	23,733
Ireland	53,221	51,812	105,033	41,576	37,076	78,652	- 26,381
Germany	14,117	8,240	22,396	10,826	6,016	16,842	- 5,554
Greece	3,147	507	3,654	6,548	1,789	8,337	4,683
Italy	6,306	1,829	8,135	20,064	6,692	26,756	18,621
Other European	27,576	9,265	36,841	31,456	11,790	43,246	6,405
Total Europe	418,765	325,664	744,429	461,299	346,340	807,639	63,210
British India	4,976	1,942	6,918	4,544	2,230	6,774	- 144
China	14,859	365	15,224	8,072	507	8,579	- 6,645
Other Asiatic	6,541	1,609	8,150	6,690	2,516	9,206	1,056
Total Asia	26,376	3,916	30,292	19,306	5,253	24,559	- 5,733
Union of South Africa	2,784	2,624	5,408	3,271	2,908	6,179	771
Other African	806	561	1,367	926	716	1,642	275
Total Africa	3,590	3,185	6,775	4,197	3,624	7,821	1,046
Canada	2,378	1,172	3,550	2,621	1,299	3,920	370
United States of America	4,134	2,470	6,604	3,560	2,497	6,066	- 538
Other American	1,195	723	1,918	965	628	1,593	- 325
Total America	7,707	4,365	12,072	7,155	4,424	11,579	- 493
Polynesia	1,991	1,177	3,168	1,582	1,305	2,887	- 281
At Sea	1,872	1,836	3,708	985	1,066	2,051	- 1,657
Not Stated	8,253	6,239	14,492	(a)	(a)	(a)	..
Total	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839	1,194,105

(a) 11,165 persons (5,769 males, 5,396 females), whose birthplace was not stated, were distributed after further analysis of other particulars on the Householders' Schedule.

NOTE.—Minus sign (—) denotes decrease.

8. **Period of Residence in Australia.**—The decline in immigration into Australia during recent years is reflected in the figures in this table which classifies the immigrant population of Australia according to period of residence in Australia. They show that, of residents not born in Australia who stated their period of residence, 6 per cent. had resided in Australia for a period of less than five years, and 25 per cent. for less than ten years, as compared with 11 per cent. and 35 per cent. respectively at the previous Census.

Fluctuations in immigration into Australia over a long period are also partially revealed by this table. Those in the group 80-84 years at the 1933 Census represent the survivors of the arrivals during the gold rush of the 'fifties, while the large numbers in the 45-49 group are the survivors of immigrants attracted during the boom period of the 'eighties. The particularly heavy immigration during the years 1911-13 is reflected in the outstanding number in the 20-24 years group, the slump during the War period of 1914-19 in the number in the 15-19 years group, and the increasing immigration after that war in the 10-14 and 5-9 years groups. The great reduction in immigration brought about by the economic depression is the cause of the relatively small number in the 0-4 years group. The 10,190 persons shown as having a period of residence of under 1 year are mostly the passengers and crews of oversea vessels which were in Australian waters on the night of the Census.

IMMIGRANT POPULATION : PERIOD OF RESIDENCE, AUSTRALIA, 1921 AND 1933.

PERSONS WHO WERE NOT BORN IN AUSTRALIA.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Number of Completed Years of Residence.	Census, 4th April, 1921.			Census, 30th June, 1933.			Increase, 1921-33.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
0	28,386	19,827	48,213	7,407	2,783	10,190	- 38,023
1	8,375	16,998	25,373	2,133	1,856	3,989	- 21,384
2	2,026	2,490	4,516	2,243	2,277	4,520	4
3	1,715	1,404	3,119	5,683	5,411	11,094	7,975
4	2,779	2,623	5,402	10,761	9,121	19,882	14,480
5-9	43,281	43,342	86,623	28,227	21,448	49,675	- 36,948
10-14	111,895	87,723	199,618	104,664	68,661	173,325	- 26,293
15-19	58,919	31,883	90,802	66,084	56,685	122,769	31,967
20-24	15,077	7,818	22,895	26,987	26,098	53,085	30,190
25-29	18,875	8,990	27,865	113,060	77,774	190,774	162,909
30-34	16,873	10,721	27,594	23,203	10,938	34,141	6,547
35-39	47,206	32,273	79,479	16,473	8,331	24,804	- 54,675
40-44	56,144	38,272	94,416	11,187	6,304	17,491	- 76,925
45-49	31,843	20,851	52,694	22,110	17,196	39,306	- 13,388
50-54	16,616	11,776	28,392	36,670	28,297	64,967	36,575
55-59	10,954	9,649	20,603	27,147	20,486	47,633	27,030
60-64	13,077	12,912	25,989	11,412	9,432	20,844	- 5,145
65-69	10,372	11,671	22,043	5,739	5,427	11,166	- 10,877
70-74	11,378	13,594	24,972	3,751	4,424	8,175	- 16,797
75-79	2,875	3,669	6,544	2,937	3,673	6,610	66
80-84	716	935	1,651	2,672	4,050	6,722	5,071
85-89	519	693	1,212	1,246	1,926	3,172	1,960
90-94	78	124	202	113	167	280	78
95-99	16	15	31	26	44	70	39
100 and over ..	x	..	..	3	5	8	7
Not Stated ..	..	..	..	..	x	1	1
Total	13,903	12,050	25,953	15,118	13,137	28,255	2,302
Total not born in Australia	480,618	358,961	839,579	518,829	384,444	903,273	63,694
Born in Australia	2,282,252	2,313,903	4,596,155	2,848,282	2,878,284	5,726,566	1,130,411
Total	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839	1,194,105

NOTE.—Minus sign (—) denotes decrease.

9. **Nationality.**—The number of foreign nationals in Australia increased since the 1921 Census by 32 per cent.—males by 25 per cent. and females by 71 per cent.—as compared with an increase of 22 per cent. in the number of British nationality. There was little change, however, in the proportion of foreign nationals relative to the total population, 99.1 per cent. of the population being British subjects, as compared with 99.2 per cent. at the previous Census. The greatest increases numerically among the foreign nationals were—Italians, 12,755; Greeks, 2,835; Yugoslavs, 2,217; and Poles, 1,257; whilst those of Chinese nationality decreased by 6,007; Dutch by 702; American (U.S.) by 700; and Japanese by 555.

The number of persons in Australia who were born in countries outside the British Empire totalled 113,557, and of this number 60,259, or 54 per cent., were of foreign nationality at 30th June, 1933, the remainder being British subjects by naturalization.

The percentages of foreign nationals to the numbers born in the corresponding foreign birthplaces were as follows:—Japanese nationals, 92 per cent. of the Japanese-born; Chinese, 91 per cent.; Yugoslav, 71 per cent.; Greek, 68 per cent.; Italian, 66 per cent.; Russian, 42 per cent.; American (U.S.), 42 per cent.; and German, 22 per cent.

POPULATION: NATIONALITY (i.e., ALLEGIANCE), AUSTRALIA, 1921 AND 1933.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Nationality.	Census, 4th April, 1921.			Census, 30th June, 1933.			Increase, 1921-33.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
British	2,722,152	2,665,053	5,387,205	3,318,228	3,251,290	6,569,518	1,182,313
Foreign—							
American (U.S.)	2,520	737	3,257	1,904	653	2,557	— 700
Chinese	13,614	185	13,799	7,615	177	7,792	— 6,007
Dan'sh	956	260	1,216	1,046	233	1,279	63
Dutch	1,430	187	1,617	786	129	915	— 702
Estonian	(a)	(a)	(a)	515	323	838	(a) 838
Finnish	517	37	554	962	100	1,062	508
French	1,221	867	2,088	924	723	1,647	— 441
German	2,538	1,017	3,555	2,738	934	3,672	117
Greek	2,430	387	2,817	4,639	1,013	5,652	2,835
Italian	3,984	919	4,903	14,068	3,590	17,658	12,755
Japanese	2,489	150	2,639	1,937	147	2,084	— 555
Norwegian	960	65	1,025	1,150	88	1,238	213
Polish	351	149	500	1,008	749	1,757	1,257
Russian	1,655	662	2,317	1,283	772	2,055	— 262
Spanish	405	140	545	463	133	596	51
Swedish	1,399	80	1,479	1,274	96	1,370	— 109
Swiss	413	151	564	680	272	952	388
Yugoslav	502	107	609	2,503	323	2,826	2,217
Other	1,683	587	2,270	3,347	962	4,309	2,039
Total Foreign	39,067	6,687	45,754	48,842	11,417	60,259	14,505
Not Stated	1,651	1,124	2,775	41	21	62	— 2,713
Total	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839	1,194,105

(a) Included with "Other" in 1921.

NOTE.—Minus sign (—) denotes decrease.

10. **Race.**—The people of Australia may be classified into two groups with respect to racial characteristics, namely, non-indigenous and indigenous. The former group comprises the European and other races who have migrated to Australia and their descendants born in Australia, while the latter group consists of the full-blood aboriginal natives of Australia whose estimated number at 30th June, 1944, were 47,014, but who are not included in the general population figures of Australia. The non-indigenous population of Australia is fundamentally British in race and nationality. The Australian people have the essential characteristics of their British ancestors, with perhaps some accentuation of the desire for freedom from restraint. The complete change of climatic

and social environment, the greater opportunity for an open-air life and the absence of the restricting conventions of older countries are exerting a noticeable influence upon the physical characteristics and social instincts of the people.

At 30th June, 1933, 99.2 per cent. of the population of Australia was stated to be of full-blood European race and 0.8 per cent. of non-European and half-caste, as compared with 99.1 per cent. and 0.9 per cent. respectively at the 1921 Census. The latter portion consisted of 22,780 full-blood non-Europeans, 20,620 half-caste aboriginals and 6,446 other half-castes. There were also 60,101 full-blood aboriginals who are not included in the general population figures.

During the intercensal period the number of full-blood non-Europeans decreased by 8,195 persons, or 26 per cent., the number of half-caste aboriginals increased by 9,084, or 74 per cent., and other half-castes increased by 366, or 6 per cent. The half-caste population was equivalent to 0.41 per cent. of the total population of Australia as compared with 0.32 per cent. in 1921.

POPULATION : RACE, AUSTRALIA, 1921 AND 1933.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Race.	Census, 4th April, 1921.			Census, 30th June, 1933.			Increase 1921-33.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Full-blood—							
European	2,726,515	2,660,628	5,387,143	3,334,775	3,245,218	6,579,993	1,192,850
Non-European—							
Chinese	16,011	1,146	17,157	9,311	1,535	10,846	-6,311
Cingalese	231	38	269	196	78	274	5
Filipino	319	103	422	214	78	292	-130
Indian (a)	2,743	138	2,881	2,216	188	2,404	-477
Japanese	2,546	194	2,740	2,007	234	2,241	-499
Malay	986	101	1,087	813	156	969	-118
Papuan	142	21	163	221	18	239	76
Polynesian	1,562	551	2,113	883	505	1,388	-725
Syrian	1,584	1,308	2,892	1,553	1,327	2,880	-12
Other	1,077	174	1,251	895	352	1,247	-4
Total Non-European Full-blood	27,201	3,774	30,975	18,309	4,471	22,780	-8,195
Half-caste—							
Australian Aboriginal ..	5,980	5,556	11,536	10,631	9,989	20,620	9,084
Chinese	1,891	1,778	3,669	1,901	1,602	3,503	-166
Indian (a)	366	329	695	360	334	694	-1
Japanese	97	91	188	116	109	225	37
Negro	108	72	180	119	89	208	28
Polynesian	184	165	349	218	216	434	85
Syrian	173	175	348	149	153	302	-46
Other	355	296	651	533	547	1,080	429
Total Half-caste	9,154	8,462	17,616	14,027	13,039	27,066	9,450
Total	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839	1,194,105

(a) Native of India.

NOTE.—Minus sign (—) denotes decrease.

11. Foreign Language.—On the occasion of the 1933 Census, persons who could not read and write English but could read and write some foreign language were asked to state that language. This question had never appeared on the Census Schedule before and there is some doubt whether the question was correctly understood, as it appears that some persons, who were able to read and write English and a foreign language also, may have replied to this question incorrectly.

The recorded figures indicate that at the 1933 Census, 29,738 persons, comprising 23,638 males and 6,100 females, stated they were not able to read and write English, but were able to read and write a foreign language. Of this number 39 per cent. were

able to read and write Italian; 17 per cent. Chinese; 10 per cent. Greek; 5 per cent. Yugoslav; 4 per cent. Japanese; and 4 per cent. German. Included in the total are 1,014 persons who were passengers, or members of the crews, of oversea vessels in Australian waters on Census night.

Forty-three per cent. of the Italian-born population of Australia stated that they were unable to read and write English but were able to read and write Italian. Similarly, 59 per cent. of the Chinese, 54 per cent. of the Japanese, 36 per cent. of the Yugoslav, 37 per cent. of the Greek, and 20 per cent. of the Maltese stated that they were unable to read and write English but could read and write a foreign language.

Particulars were not obtained concerning the number, if any, of foreign-born persons who could not read and write any language.

IMMIGRANT POPULATION: FOREIGN LANGUAGE, AUSTRALIA; 1933 CENSUS.

PERSONS NOT ABLE TO READ AND WRITE ENGLISH, BUT ABLE TO READ AND WRITE A
FOREIGN LANGUAGE.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Foreign Language.	Males.	Females.	Persons.
Albanian	428	1	429
Arabic	178	99	277
Bulgarian	144	21	165
Chinese	5,008	64	5,072
Croatian	128	19	147
Czechoslovak	76	12	88
Danish	59	27	86
Estonian	35	29	64
Filipino	65	1	66
Finnish	233	49	282
French	105	130	235
German	598	466	1,064
Greek	2,185	906	3,091
Hebrew	134	203	337
Hindu	614	4	618
Italian	8,630	2,901	11,531
Japanese	1,142	76	1,218
Malay	389	1	390
Maltese	445	119	564
Norwegian	124	5	129
Polish	102	124	226
Russian	278	302	580
Serbian	74	6	80
Spanish	277	93	370
Swedish	143	20	163
Syrian	93	67	160
Yugoslav	1,158	263	1,421
Other	793	92	885
Total	23,638	6,100	29,738

12. Industry.—The following table shows the population of Australia classified according to the industry group in which they are usually engaged. The number of breadwinners in Australia at 30th June, 1933, was 3,155,621, of whom 2,367,780 were males and 787,841 females. The term "breadwinner" generally includes persons

of all ages who are employers, workers on own account, wage and salary earners, unemployed persons, pensioners, and those of independent means. Pensioners included in this number totalled 286,091. Excluding pensioners, the breadwinners numbered 2,869,530, comprising 2,239,677 males and 629,853 females. Owing to the adoption of an improved classification since the 1921 Census, in accordance with the recommendations of the Conference of Empire Statisticians, there has been some difficulty in making a strictly accurate comparison, between the numbers engaged in each group at the Censuses of 1921 and 1933. The main divergence is that relating to the proportion of breadwinners to total population. This is the result of the exclusion of pensioners from the industry groups under the new classification.

At the 1921 Census pensioners were classified to their previous industry, or to the dependent or independent groups, whichever was stated. At the 1933 Census, however, they were specifically directed to state if they were pensioners and they were classed accordingly. These facts need to be borne in mind in considering the recorded changes to which attention is called below.

The proportion of breadwinners (including all pensioners shown) in the male population increased from 68.1 per cent. at the 1921 Census to 70.3 per cent. at the 1933 Census, and female breadwinners from 17.5 per cent. to 24.1 per cent. If pensioners are excluded, the proportion of breadwinners at the 1933 Census was as follows:—males, 66.5 per cent. and females 19.3 per cent. Comparable figures for 1921 are not available.

Since the 1921 Census the total of male breadwinners, including pensioners, increased by 25.8 per cent., and female breadwinners by 68.7 per cent. This increase in the number of female breadwinners is due in large measure to the increase in the stated number of old-age and invalid pensioners in 1933 as compared with the stated number in 1921. Excluding those who were not definitely stated to be associated with some occupation or industry, the number of breadwinners increased by 17.9 per cent.—males by 15.4 per cent. and females by 27.9 per cent.

At the 1933 Census, as also at the previous Census, the Industrial group (factories, construction works, etc.) was the predominant group of industries and included 32.1 per cent. of the breadwinners (excluding those not definitely associated with industry) in Australia in 1933 as compared with 31.4 per cent. at the 1921 Census. The number of persons engaged in industrial occupations throughout Australia exceeded those in all primary industries by 209,120, or 32 per cent., as compared with 22 per cent. at the previous Census. The proportion of breadwinners engaged in the Agricultural, Pastoral and Dairying industries decreased from 21.0 per cent. at the 1921 Census to 20.3 per cent. in 1933.

During the intercensal period the aggregate increase in the number of males employed in each industry group was greater than that for females, with the exception of Personal and Domestic Service, and the Public Administration and Professional groups. The proportion of females to the total number of persons engaged in the various occupational groups increased in the majority of groups, as follows:—Personal and Domestic Service from 76.2 per cent. in 1921 to 78.4 per cent. in 1933; Public Administration and Professional from 39.0 per cent. to 46.1 per cent.; Commerce and Finance from 21.8 per cent. to 24.9 per cent.; Entertainment, Sport and Recreation from 13.0 per cent. to 16.4 per cent.; Transport and Communication from 3.5 per cent. to 5.2 per cent.; and Agricultural, Pastoral, etc., from 2.1 per cent. to 3.6 per cent. In the Industrial group (factories, construction works, etc.), the number of persons engaged in the Building and Construction sections—where the proportion of females is low—increased more than in the Factory group with the result that the proportion of females in the group fell from 16.7 per cent. to 15.9 per cent. Considered separately, it will be seen that the proportion of females in the several sections scarcely altered since 1921 so that the smaller proportion of females in the group as a whole is due to the altered values of the component parts of the group. In all industry groups taken together the proportion of females to the total number of persons engaged increased from 19.9 to 21.6 per cent.

POPULATION : NUMBER ENGAGED IN INDUSTRY, AUSTRALIA, 1921 AND 1933.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Industry Group.	Census, 4th April, 1921.			Census, 30th June, 1933.			Increase, 1921-33.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Fishing and Trapping ..	10,671	81	10,752	14,570	41	14,611	3,859
Agricultural, Pastoral and							
Dairying	471,460	9,805	481,355	528,154	19,633	547,787	66,432
Forestry	30,191	89	30,280	26,019	114	26,133	4,147
Mining and Quarrying ..	66,524	242	66,766	68,327	193	68,520	1,754
Industrial—							
Manufacturing	326,847	118,727	445,574	375,434	136,077	511,511	65,937
Building	94,878	396	95,274	107,039	407	107,446	12,172
Other	176,183	775	176,958	245,919	1,295	247,214	70,256
Total Industrial ..	597,908	119,898	717,806	728,392	137,779	866,171	148,365
Transport and Communica-							
tion	200,523	7,224	207,737	212,161	11,732	223,893	16,156
Commerce and Finance ..	258,595	72,083	330,678	338,837	112,335	451,172	120,494
Public Administration and							
Professional	131,234	83,995	215,229	125,092	107,120	232,212	16,983
Entertainment, Sport and							
Recreation	15,517	2,313	17,830	20,278	3,972	24,250	6,420
Personal and Domestic							
Service	49,934	159,880	309,814	52,354	190,024	242,378	32,564
No Industry or Industry							
Not Stated	50,115	11,299	61,414	a 125,493	a 46,910	a 172,403	110,989
Pensioners	(b)	(b)	(b)	128,103	157,988	286,091	(b)
Total Breadwinners	1,882,672	466,989	2,349,661	2,367,780	787,841	3,155,621	805,960
Dependants	880,198	2,205,875	3,086,073	999,331	2,474,887	3,474,218	388,145
Total	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839	1,194,105

(a) Includes unemployed persons for whom industry was not stated. (b) Comparable figures not available. Most pensioners in 1921 were recorded in the industry group to which they claimed to belong.

NOTE.—Minus sign (—) denotes decrease.

13. Grade of Occupation.—This table shows the population of Australia classified according to the capacity in which they were engaged in the various branches of industry. The number of employers at 30th June, 1933, was 207,680, an increase of 48.7 per cent. over the number stated at the 1921 Census, but actually 2 per cent. less than the number of employers at the 1911 Census. Those persons who were stated to be working on own account showed an increase of 7.9 per cent. since the 1921 Census.

Of the population at 30th June, 1933, 1,589,271 males and 510,277 females were stated to be in the wage and salary earning group. On account of the economic depression in 1933, a number of boys and girls who would normally have been wage and salary earners had never been in work, and were omitted from this grade. If these be included the total wage and salary earning group in 1933 would be 1,647,671 males and 538,515 females representing 65.9 and 22.2 per cent. respectively of males and females aged 14 years and over, compared with 67.1 and 20.2 per cent. at the 1921 Census.

The proportion of females to the total number of persons in the wage-earning group increased from 22.6 per cent. in 1921 to 24.3 per cent. at the time of the 1933 Census.

Of the wage-earning group, 1,447,507 or 69.0 per cent. were in full-time employment at the date of the Census; 170,997 persons, or 8.1 per cent., were employed part-time (this number includes those who stated themselves to be on sustenance work or relief work); and 481,044, or 22.9 per cent., stated themselves to be unemployed.

POPULATION : GRADE OF OCCUPATION, AUSTRALIA, 1921 AND 1933.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Grade.	Census, 4th April, 1921.			Census, 30th June, 1933.			Increase, 1921-33.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Employer	129,142	10,481	139,623	186,849	20,831	207,680	68,057
Working on Own Account	296,291	46,030	342,321	318,951	50,424	369,375	27,054
Wage or Salary Earner				1,019,158	401,982	1,421,140	
Apprenticed							
Wage Earner	1,148,132	354,761	1,502,893	20,674	5,693	26,367	115,611
Employed Part-time				144,170	26,827	170,997	
Unemployed	137,675	21,405	159,080	405,269	75,775	481,044	321,964
Helper not receiving							
Salary or Wages ..	31,620	3,172	34,792	40,754	5,262	46,016	11,224
Grade not applicable (a)	994,590	2,229,653	3,224,243	1,226,866	2,674,756	3,901,562	677,319
Not Stated	25,420	7,362	32,782	4,480	1,178	5,658	-27,124
Total	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839	1,194,105

(a) Includes pensioners, persons of private means not in business, females engaged in home duties, scholars and other dependants. NOTE.—Minus sign (—) denotes decrease.

14. Unemployment.—The number of persons who stated they were wholly unemployed at 30th June, 1933, totalled 481,044, or 22.9 per cent. of the number of persons in the wage-earning group. Of those unemployed, 405,269 were males and 75,775 females, representing a percentage of unemployment of 25.5 for males and 14.8 for females respectively.

Corresponding percentage of unemployment from the 1921 Census results were males 10.7 per cent. and females 5.7 per cent. At the 1933 Census 15,061 males and 7,710 females who were unemployed and under 21 years of age stated they had never been in employment.

The percentage of males unemployed in Australia according to the Census returns (25.5 per cent.) was practically the same as the percentage of members of reporting trade unions in Australia who were unemployed (25.4), as shown by the returns supplied by the unions to the Commonwealth Statistician for the second and third quarters of 1933.

Of the 481,044 persons unemployed, 453,487 stated the cause of their unemployment : 90.9 per cent. was due to scarcity of employment ; 5.6 per cent. to illness ; 1.1 per cent. to accident ; and 2.4 per cent. to all other causes. The proportion of wage-earners who were unemployed as the result of illness and accident had decreased since the 1921 Census from 2.7 per cent. to 1.4 per cent. for males, and from 2.6 per cent. to 1.7 per cent. for females.

POPULATION : CAUSE OF UNEMPLOYMENT, AUSTRALIA, 1921 AND 1933.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Cause.	Census, 4th April, 1921.			Census, 30th June, 1933.			Increase, 1921-33.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Scarcity of Employment ..	68,751	6,092	74,843	355,935	56,296	412,231	337,388
Illness	29,799	9,551	39,350	17,223	8,263	25,491	-13,859
Industrial Dispute ..	4,249	290	4,539	1,526	83	1,611	-2,928
Accident	4,556	246	4,802	4,484	391	4,875	73
Other Causes	24,069	4,061	(a) 28,130	1,590	368	1,958	-26,232
Voluntarily (so described)	(b)	(b)	(b)	4,579	2,802	7,381	(b) 7,381
Not Stated	6,251	1,165	7,416	19,932	7,625	27,557	20,141
Total	137,675	21,405	159,080	405,269	75,775	481,044	321,964

(a) Many classified as "Other Causes" were due to "Scarcity of Employment". (b) Not shown separately in 1921. (c) Excludes wage-earners stated to be employed part-time or on sustenance or relief work. NOTE.—Minus sign (—) denotes decrease.

Of those who stated the duration of their unemployment, 24.9 per cent. had been unemployed for less than 24 weeks; 14.1 per cent. between 24 weeks and 1 year; 13.9 per cent. between 1 and 2 years; 18.2 per cent. between 2 and 3 years; 18.9 per cent. between 3 and 4 years; and 10.0 per cent. for 4 years or longer. Sixty-four per cent. of the males unemployed and 43 per cent. of the females unemployed stated that a period of over one year had elapsed since they were last regularly employed.

POPULATION: DURATION OF UNEMPLOYMENT, AUSTRALIA, 1921 AND 1933.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Duration of Unemployment.	Census, 4th April, 1921.			Census, 30th June, 1933.			Increase, 1921-33.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Under 1 week	12,107	1,751	13,858	1,970	682	2,652	- 11,206
1 week	14,250	2,318	16,568	4,612	1,980	6,592	- 9,976
2 weeks	11,537	1,795	13,332	5,698	2,218	7,916	- 5,416
3	9,477	1,424	10,901	5,035	1,917	6,952	- 3,949
4 weeks and under 8 weeks	20,967	3,289	24,256	16,637	5,382	22,019	- 2,237
8	12,202	1,958	14,160	13,711	3,771	17,482	3,322
12	10,662	1,698	12,360	17,815	4,542	22,357	9,997
16				10,352	2,441	12,793	
20				7,007	1,512	8,519	
24				24,607	6,306	30,913	
28				6,289	1,171	7,460	
32				6,046	2,103	7,149	
36				7,240	1,213	8,453	
40				3,882	691	4,573	
44				113	10	123	
48				2,170	358	2,528	
Total under 1 year				133,184	35,297	168,481	
1 year and under 2 years				50,344	9,700	60,044	
2 years				69,848	8,667	78,515	
3				75,895	5,669	81,564	
4				40,607	2,616	43,223	
Not Stated	20,671	3,477	24,148	35,391	13,826	49,217	25,069
Total	137,675	21,405	159,080	405,269	75,775	481,044	321,964

(a) Excludes wage-earners stated to be employed part-time or on sustenance or relief work.

NOTE.—Minus sign (—) denotes decrease.

§ 7. Dwellings.

1. Number of Dwellings.—The great majority of the questions on the Census Schedule related to the individual members of the household, but other important questions referred to the dwellings in which the people were living at the date of the Census. From the replies to these questions much valuable information was tabulated concerning housing conditions. For Census purposes a dwelling is the habitation of a family group, whether this comprises the whole of any building or only part thereof. Where two or more separate buildings in one place are used by a single family for dwelling purposes, the whole is regarded as one dwelling. On the other hand, where a building is subdivided into tenements or flats which are occupied as separate units, each unit is counted as a dwelling. A flat has been defined as a room or suite of rooms which was designed, or has been adapted, to be occupied as a separate domicile.

The Census definition of a dwelling includes private houses, tenements, flats, hotels, boarding-houses, hospitals, other institutions and any other structure used for the purpose of human habitation. Since the 1921 Census, the number of dwellings in Australia including those being built increased by 407,714, or 33.7 per cent., a much higher rate

of increase than that of 22.0 per cent. for the population during the same period. At the previous Census there was one private dwelling for every 4.9 persons in Australia but at 30th June, 1933, this ratio had increased to one dwelling for every 4.4 persons.

The following table represents a summary of the information relating to the number of dwellings in Australia at 30th June, 1933 :—

DWELLINGS : AUSTRALIA, 1933 CENSUS.

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS.)

Division.	Occupied.	Unoccupied.	Being Built.	Total.	Percentage of Total Dwellings.
Urban—					%
Metropolitan	732,247	24,123	976	757,346	46.79
Provincial	257,259	10,105	474	267,838	16.55
Rural	557,870	34,544	902	593,316	36.66
Total	1,547,376	68,772	2,352	1,618,500	100.00

Details for each State and Territory are as follows :—

DWELLINGS : STATES, 1933 CENSUS.

State or Territory.	Occupied.	Unoccupied.	Being Built.	Total.
New South Wales	599,750	28,737	746	629,233
Victoria	432,872	18,763	750	452,385
Queensland	216,122	9,311	301	225,734
South Australia	139,274	5,353	160	144,787
Western Australia	103,578	4,029	260	107,867
Tasmania	52,484	2,421	129	55,034
Northern Territory	1,301	55	1	1,357
Australian Capital Territory	1,995	103	5	2,103
Total	1,547,376	68,772	2,352	1,618,500

2. Class of Dwelling.—As previously indicated, the dwellings in which the people are housed comprise private houses, tenements, flats, hotels, boarding-houses, charitable institutions, etc. It is desirable when considering the question of housing to exclude those forms of accommodation which do not represent the normal housing conditions associated with family life, and the statistics which follow relate mainly to private dwellings only, i.e., private houses, tenements and flats.

At the 1933 Census 1,509,671, or 97.6 per cent. of the total occupied dwellings in Australia were private dwellings, as compared with 1,107,010, or 96.0 per cent., at the 1921 Census. During the intercensal period the number of private dwellings in Australia increased by 402,661, or 36.4 per cent.; those in the metropolitan areas increased by 244,993, or 52.4 per cent.; the urban provincial by 41,804, or 20.1 per cent., and in the rural areas by 115,864, or 26.9 per cent.

DWELLINGS : CLASS OF OCCUPIED DWELLING, AUSTRALIA, 1921 AND 1933.

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS.)

Class of Occupied Dwellings.	Number of Occupied Dwellings.									Increase, 1921-33.
	Census, 4th April, 1921.				Census, 30th June, 1933.					
	Urban.		Rural.	Total Australia.	Urban.		Rural.	Total Australia.		
	Metro-politan.	Pro-vincial.			Metro-politan.	Pro-vincial.				
Private House ..	440,092	202,270	426,215	1,068,607	651,138	240,199	543,182	1,434,519	365,912	
Tenement or Flat ..	27,821	5,535	5,045	38,403	61,768	9,412	3,972	75,152	36,749	
Total Occupied Private Dwellings ..	467,913	207,807	431,290	1,107,010	712,906	249,611	547,154	1,509,671	402,661	
Caretaker's Quarters in Store, Office, etc. ..	864	298	462	1,624	1,326	483	651	2,460	836	
Hotel ..	1,925	2,330	3,711	7,966	1,683	1,853	3,062	6,598	1,368	
Boarding-house, Lodging House, Coffee Palace	18,354	4,837	4,474	27,665	14,092	3,606	3,234	20,932	6,733	
Educational Institution	400	325	309	1,034	479	303	359	1,141	107	
Religious Institution (non-educational) ..	97	59	66	222	52	13	30	95	127(a)	
Hospital ..	721	766	717	2,204	747	619	773	2,139	65(a)	
Charitable Institution (other than Hospital)	240	109	260	609	253	66	100	428	181(a)	
Penal Establishment ..	63	51	19	133	9	24	16	49	84(a)	
Military or Naval Establishment ..	48	63	220	331	19	16	10	45	286(a)	
Police Station or Barracks ..	207	386	882	1,475	209	300	1,011	1,520	45	
Fire Station ..	153	82	25	265	117	102	42	261	4	
Other (includes Club) ..	194	165	2,388	2,747	310	231	1,308	1,849	-710	
Not Stated ..										45	32	111	188
Total Other Occupied Dwellings ..	23,271	9,471	13,533	46,275	19,341	7,648	10,716	37,705	8,570	
Total Occupied Dwellings ..	491,184	217,278	444,823	1,153,285	732,247	257,259	557,870	1,547,376	394,091	
Total Occupied Dwellings per square mile ..	492.26	59.68	0.15	0.39	579.99	82.99	0.19	0.52	0.13	
Wagon, Van, etc. (includes campers-out)	63	570	4,588	5,221	268	1,669	7,444	9,381	4,160	

(a) At the 1921 Census, detached buildings in some cases may have been counted separately, whereas in 1933 they have been counted together as one institution.

NOTE.—Minus sign (—) denotes decrease.

3. Number of Rooms.—For Census purposes, the kitchen and any enclosed sleep-out or portion of a verandah that was permanently enclosed were included in the number of rooms in the dwelling, but the bathroom, pantry and store were not included unless generally used for sleeping. The average number of rooms per private house in Australia at 30th June, 1933, was 5.03, and was slightly higher than that of 4.99 rooms at the previous Census. The average per private house in the metropolitan areas increased from 5.24 to 5.36 rooms; in the urban provincial sections the average scarcely altered, being 5.09 as compared with 5.11; and in the rural areas the average of 4.60 rooms per house was slightly lower than at the 1921 Census when the average was 4.67.

The average number of rooms for all tenements and flats was considerably less than that for private houses, and showed a substantial decline from 3.77 to 3.08 rooms, indicating a tendency towards even smaller flats. The reduction in the size of tenements and flats occurred throughout all divisions: the average for the metropolitan areas fell from 3.74 to 3.22 rooms and for the urban provincial sections from 3.87 to 2.52 rooms, with the heaviest decline of all in the rural areas from 3.85 to 2.24 rooms.

DWELLINGS : OCCUPIED PRIVATE DWELLINGS CLASSIFIED ACCORDING TO NUMBER OF ROOMS, AUSTRALIA, 1921 AND 1933.

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS.)

Number of Occupied Private Dwellings.									
Number of Rooms per Dwelling.(a)	Census, 4th April, 1921.				Census, 30th June, 1933.				Increase 1921-33.
	Urban.		Rural.	Total Aus- tralia.	Urban.		Rural.	Total Aus- tralia.	
	Metro- politan.	Pro- vincial.			Metro- politan.	Pro- vincial.			
1	5,845	4,036	35,956	45,837	7,676	7,556	49,063	64,295	18,458
2	8,897	5,489	26,772	41,158	16,005	8,142	33,440	57,587	16,429
3	34,784	11,289	34,378	80,451	39,684	11,622	40,271	91,577	11,126
4	112,254	49,565	102,397	264,216	148,457	52,362	122,579	323,398	59,182
5	143,637	69,411	101,774	314,822	220,327	81,170	130,650	432,147	117,325
6	89,968	39,172	65,293	194,433	165,017	52,846	89,408	307,271	112,838
7	37,049	15,187	29,985	82,221	63,560	19,816	39,830	123,206	40,985
8	17,311	6,607	14,600	38,518	24,776	7,416	17,356	49,548	11,030
9	7,190	2,789	6,052	16,031	10,153	2,876	6,982	20,011	3,980
10	3,932	1,530	3,517	8,979	4,706	1,463	3,859	10,028	1,049
11	1,675	592	1,298	3,565	1,968	546	1,520	4,034	469
12	1,208	391	1,248	2,847	1,463	382	1,419	3,264	417
13	483	172	429	1,084	560	124	452	1,136	52
14	469	136	532	1,137	499	140	588	1,227	90
15	230	64	261	555	244	64	346	654	99
16	151	37	223	411	144	45	236	425	14
17	95	35	112	242	89	19	168	276	34
18	62	16	91	169	51	24	122	197	28
19	39	4	56	99	29	7	49	85	14
20 and over ..	199	54	308	561	131	32	352	515	46
Not Stated ..	2,435	1,231	6,008	9,674	7,367	2,959	8,464	18,790	9,116
Total Private Dwellings	467,913	207,807	431,290	1,107,010	712,906	249,611	547,154	1,509,671	402,661
Average Number of Rooms per Private Dwelling(a) ..	5.15	5.07	4.66	4.94	5.23	5.06	4.65	4.99	0.05

(a) Includes kitchen and enclosed sleep-out or portion of a verandah that has been permanently enclosed but does not include bathroom, pantry, store or outhouse, unless generally used for sleeping.

NOTE.—Minus sign (—) denotes decrease.

4. Nature of Occupancy.—At the 1921 Census the nature of occupancy of private houses was not tabulated separately from that of tenements and flats. At the 1933 Census, however, it was ascertained that 42.8 per cent. of the private houses in Australia for which particulars were supplied were occupied by owners; 13.5 per cent. by purchasers by instalments; 39.1 per cent. by tenants; and 4.6 per cent. by others.

In the metropolitan areas 51.4 per cent. of the occupants of private houses were owners or purchasers by instalments, as compared with 54.4 per cent. in the urban provincial areas, and 63.2 per cent. in the rural. In the latter areas, however, the ownership of the house is associated with the ownership of the land acquired as a means of livelihood.

More than 91 per cent. of the tenements and flats in Australia were occupied by tenants. The figures for all private dwellings, including tenements and flats, show that at the 1933 Census 53.8 per cent. of the dwellings were occupied by owners or were in process of purchase by instalments and 41.7 per cent. were occupied by tenants, as compared with 53.7 per cent. and 41.7 per cent. respectively at the 1921 Census, showing practically no alteration during the intercensal period.

DWELLINGS : OCCUPIED PRIVATE DWELLINGS CLASSIFIED ACCORDING TO THE NATURE OF OCCUPANCY, AUSTRALIA, 1921 AND 1933.

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS.)

	Number of Occupied Private Dwellings.										
Nature of Occupancy.	Census, 4th April, 1921.					Census, 30th June, 1933.					Increase, 1921-33.
	Urban.		Rural.	Total Aus- tralia.	Urban.		Rural.	Total Aus- tralia.			
	Metro- politan.	Pro- vincial.			Metro- politan.	Pro- vincial.					
Owner	133,729	81,008	227,026	441,763	218,539	100,421	285,453	604,413	162,650		
Purchaser by Instalments ..	79,055	25,607	33,321	137,983	117,305	28,720	43,602	189,627	51,644		
Tenant	241,567	91,031	117,082	449,680	360,393	108,359	146,660	615,412	165,732		
Caretaker	6,036	6,025	37,514	49,575	6,410	5,022	29,331	40,763	16,310		
Other Methods of Occu- pancy											
Not Stated	7,526	4,136	16,347	28,009	3,146	2,810	19,166	25,122	6,325		
					7,113	4,279	22,942	34,334			
Total	467,913	207,807	431,290	1,107,010	712,906	249,611	547,134	1,509,671	402,661		

5. **Rent per Week.**—The information which has been tabulated concerning rents is restricted to the actual rent paid per week for unfurnished private dwellings occupied by tenants. For 15.5 per cent. of the private houses the rent was less than 10s. per week; for 49.8 per cent., between 10s. and £1 per week; for 27.4 per cent., between £1 and £1 10s. per week; and for 7.3 per cent., over £1 10s. per week. Three-fourths of the houses with rents of less than 10s. per week were located outside the metropolitan areas.

The average rent was 17s. per week for unfurnished private houses throughout Australia. In the metropolitan areas the average was 19s. 7d. per week, in the urban provincial areas 15s. 9d., and in the rural areas 11s. 2d.

The average rent for unfurnished tenements and flats in the metropolitan areas was 23s. 6d. per week, or 20 per cent. more than that paid for private houses in the same areas, notwithstanding that private houses in the metropolitan areas contain 50 per cent. more rooms than flats. In the urban provincial and rural areas, however, the rent of tenements and flats was approximately 15 per cent. and 11 per cent. respectively less than for private houses. For 16.9 per cent. of the tenements and flats a rent of less than 10s. per week was paid, and this percentage was slightly greater than for private houses; the 33.8 per cent. between 10s. and £1 per week was only two-thirds of the proportion of private houses in this group; the percentage of 26.5 between £1 and £1 10s. per week was practically the same for private houses and flats; but the 22.8 per cent. of tenements and flats with rent exceeding £1 10s. per week was three times the percentage of private houses in this rental group.

In the metropolitan areas 15 per cent. of the total private dwellings were tenements and flats, and the percentages of the total numbers of private dwellings in the several rental groups which consisted of tenements and flats were as follows:—Under 10s. per week, 29 per cent.; between 10s. and £1, 10 per cent.; between £1 and £1 10s., 13 per cent.; between £1 10s. and £2, 26 per cent.; between £2 and £2 10s., 36 per cent.; and in the over £2 10s. per week rental group 47 per cent. were tenements and flats.

A comparison of the average rents at the 1933 Census with those at the 1921 Census is possible for all private dwellings only and not for private houses separately from tenements and flats, which were not tabulated separately at the 1921 Census. The average rent of 17s. 6d. per week for all private dwellings comprising private houses, tenements and flats in Australia was 6 per cent. higher than that at the 1921 Census.

During the intercensal period particulars of rents as at the middle of each quarter are collected regularly by the Commonwealth Statistician from house agents in certain cities and towns throughout Australia. A comparison of these figures for the first quarter of 1921 with the second quarter of 1933 shows approximately the same change in average rents as was obtained from the Census figures. They also show that the peak period of high rents during the intercensal period occurred in the first quarter of 1928 when the average for the metropolitan areas of Australia was 21 per cent. higher than for 1921, but since that peak year the average fell by 20 per cent. to the 1933 figures.

**DWELLINGS : PRIVATE DWELLINGS OCCUPIED BY TENANTS CLASSIFIED
ACCORDING TO THE RENT PER WEEK, AUSTRALIA, 1921 AND 1933.**

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS.)

Number of Occupied Private Dwellings.										
Rent per week Unfurnished.	Census, 4th April, 1921.				Census, 30th June, 1933.				Increase, 1921-33.	
	Urban.		Rural.	Total Aus- tralia.	Urban.		Rural.	Total Aus- tralia.		
	Metro- politan.	Pro- vincial.			Metro- politan.	Pro- vincial.				
Under 5s. . .	1,067	3,317	18,304	22,688	1,663	2,837	14,869	19,369	- 3,319	
5s. and under 10s. . .	12,786	19,885	37,957	70,628	20,332	13,865	32,083	66,281	- 4,347	
10s. " " 15s. . .	56,331	31,158	29,830	117,319	71,755	30,618	33,435	135,808	18,489	
15s. " " 20s. . .	56,581	16,535	10,189	83,305	86,365	25,196	16,036	127,587	44,282	
20s. " " 25s. . .	40,486	9,104	5,683	55,273	74,460	16,806	9,173	100,439	45,166	
25s. " " 30s. . .	25,373	3,709	1,546	30,628	39,777	6,310	2,860	48,947	18,319	
30s. " " 35s. . .	14,305	1,884	1,061	17,250	21,403	2,827	1,051	25,281	8,031	
35s. " " 40s. . .	5,900	441	207	6,548	8,274	712	180	9,166	2,618	
40s. " " 50s. . .	6,589	570	469	7,628	7,992	505	170	8,667	1,039	
50s. " " 60s. . .	2,726	179	126	3,031	2,642	95	55	2,792	- 239	
60s. " " 70s. . .	1,556	123	85	1,764	1,488	57	21	1,566	- 198	
70s. " " 80s. . .	570	24	26	620	593	10	5	603	- 21	
80s. " " 90s. . .	503	35	34	572	445	5	2	452	- 120	
90s. " " 100s. . .	210	11	3	224	180	6	..	195	- 29	
100s. and over . .	580	14	29	623	482	7	4	493	- 130	
Not Stated ..	15,995	4,042	11,533	31,570	22,532	8,513	36,716	67,761	36,191	
Total Private Dwell- ings ..	241,567	91,031	117,032	449,680	360,393	103,359	146,660	613,412	165,732	
Average Weekly Rent per Private Dwelling	20s. 8d.	14s. 0d.	9s. 11d.	16s. 6d.	20s. 2d.	15s. 7d.	11s. 2d.	17s. 6d.	18. 0d.	

NOTE.—Minus sign (—) denotes decrease.

6. Private Houses of Three to Six Rooms.—A special inquiry was undertaken concerning private houses of three to six rooms with walls of wood, or of brick or stone, as a more satisfactory average of predominant rents paid by wage-earners can be obtained by restricting the analysis to this group, which as previously indicated comprised 78.1 per cent. of the private houses in Australia.

Since the 1921 Census the number of houses of three to six rooms in Australia had increased by 34 per cent. to a total of 1,108,594. Particulars as to rent were summarized for 440,560 houses of this number with walls of wood, brick or stone which were occupied by tenants; 46 per cent. had walls of brick or stone and 54 per cent. of wood. The distribution was the same as that of the previous Census and the proportions of rented houses with walls of wood, and of brick or stone, had not changed during the intercensal period.

At the 1933 Census there was a smaller proportion of rented houses of three and four rooms and an increased proportion of those of five and six rooms. for both wooden houses and brick houses. The relative increases for rented houses of three, four, five and

six rooms during the intercensal period were 2, 28, 43 and 60 per cent. respectively. In the metropolitan areas the proportional increase of houses of five and six rooms was even higher. The average rent of 18s. 5d. per week for all private houses, three to six rooms, of wood, brick or stone in the metropolitan areas at the 1933 Census was practically the same as at the 1921 Census.

In the urban provincial sections the average rent of 15s. 7d. per week was much higher than at the 1921 Census and the increase is found for all houses of three, four, five or six rooms, whether of wood, brick or stone. In the rural areas also the average rent of 11s. 6d. was much higher than that at the 1921 Census, and an increase is found in all types of houses included in this group.

An interesting comparison regarding the rent of private houses is that based on the average weekly rent per room. At the 1933 Census the average rent per room for wooden houses in the metropolitan areas of Australia was 3s. 5d. per week, and showed little alteration from the average of 3s. 6d. per week at the 1921 Census. Similarly, the average of 4s. 1d. per room for brick houses in the metropolitan areas was practically the same as at the previous Census.

In the urban provincial sections, however, the average rent of 3s. 1d. per room for wooden houses was higher than the 1921 Census figure of 2s. 8d. per week, and the rent of 3s. 6d. per week for brick houses was also higher in comparison with the previous figure of 3s. 1d. per week. The average rent per room in the rural areas also showed increases from 2s. 1d. to 2s. 6d. per week for wooden houses, and from 2s. 3d. to 2s. 7d. per week for those of brick. With the exception of brick houses in the metropolitan areas, the average rent per room for houses of three rooms was generally higher than for houses of four, five or six rooms. The increase since the 1921 Census in the rent per room was somewhat similar for all houses of three to six rooms in the provincial and rural sections of Australia.

DWELLINGS : AVERAGE WEEKLY RENT PER ROOM OF PRIVATE HOUSES, THREE TO SIX ROOMS, WITH WALLS OF WOOD, BRICK OR STONE, OCCUPIED BY TENANTS, AUSTRALIA, 1921 AND 1933.

(EXCLUDING TENEMENTS, FLATS, BOARDING-HOUSES, HOTELS, ETC., AND DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS.)

Average Weekly Rent per Room.										
Particulars.	Census, 4th April, 1921.				Census, 30th June, 1933.				Increase, 1921-33.	
	Urban.		Rural.	Total Aus- tralia.	Urban.		Rural.	Total Aus- tralia.		
	Metro- politan.	Pro- vincial.			Metro- politan.	Pro- vincial.				
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	
Private Houses with Walls of—										
Wood—										
3 rooms	3 9	3 3	2 6	3 2	3 8	3 6	2 8	3 3	0 1	
4 „ „	3 7	2 9	2 2	2 10	3 7	3 4	2 7	3 2	0 4	
5 „ „	3 5	2 7	2 1	2 9	3 5	3 1	2 6	3 1	0 4	
6 „ „	3 5	2 6	2 0	2 7	3 4	2 11	2 3	2 11	0 4	
3 to 6 rooms ..	3 6	2 8	2 1	2 9	3 5	3 1	2 6	3 1	0 4	
Brick or Stone—										
3 rooms	4 0	3 5	2 4	3 10	4 0	3 9	2 6	3 11	0 1	
4 „ „	4 2	3 3	2 2	3 11	4 2	3 7	2 7	4 0	0 1	
5 „ „	4 2	3 1	2 3	3 10	4 1	3 6	2 8	3 11	0 1	
6 „ „	4 1	3 0	2 3	3 10	4 1	3 5	2 7	3 11	0 1	
3 to 6 rooms ..	4 2	3 1	2 3	3 10	4 1	3 6	2 7	3 11	0 1	
Wood, Brick or Stone—										
3 rooms	3 11	3 4	2 5	3 6	3 11	3 7	2 8	3 7	0 1	
4 „ „	3 11	2 11	2 2	3 3	3 11	3 4	2 7	3 6	0 3	
5 „ „	3 11	2 9	2 1	3 3	3 10	3 3	2 6	3 6	0 3	
6 „ „	3 11	2 8	2 0	3 3	3 10	3 1	2 4	3 5	0 2	
3 to 6 rooms ..	3 11	2 9	2 2	3 3	3 10	3 3	2 6	3 6	0 3	

§ 8. Oversea Migration.

1. Oversea Migration during Present Century.—Earlier issues of the Official Year Book contain in summary form tables showing the increase of population by net migration from 1861 to the latest date, while the *Demography Bulletins* issued by this Bureau give this information for the individual years. On pp. 472-3 of this chapter will be found a summary showing, in quinquennial groups from 1901 to 1940 and in single years from 1937 to 1944, the increase by net migration to the population of the States. The following table shows for Australia the arrivals and departures and the net migration since 1901 :—

OVERSEA MIGRATION : AUSTRALIA.

Period.	Arrivals.			Departures.			Net Migration.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
1901-05..	196,993	84,167	281,160	204,170	93,783	297,953	- 7,177	- 9,616	- 16,793
1906-10..	251,482	119,552	371,034	213,483	100,273	313,756	37,999	19,279	57,278
1911-15(a)	422,927	209,893	632,820	382,552	113,406	495,958	40,375	96,487	136,862
1916-20(a)	438,721	100,764	539,485	390,202	78,574	468,776	48,519	22,190	70,709
1921-25..	289,695	188,357	478,052	171,974	122,535	294,509	117,721	65,832	183,543
1926-30..	266,593	203,887	470,480	193,013	147,409	340,422	73,580	56,478	130,058
1931-35..	124,207	115,116	239,323	134,883	115,326	250,209	-10,676	- 210	- 10,886
1936-40(b)	161,774	159,538	321,312	140,901	137,283	278,184	20,873	22,255	43,128
1937 ..	35,123	34,679	69,802	32,161	32,438	64,599	2,962	2,241	5,203
1938 ..	39,910	38,018	77,928	34,206	34,585	68,791	5,704	3,433	9,137
1939(b) ..	37,719	37,366	75,085	31,491	29,703	61,194	6,228	7,663	13,891
1940(b) ..	19,296	19,307	38,603	13,998	11,205	25,203	5,298	8,102	13,400
1941(b) ..	11,861	10,800	22,661	10,063	7,414	17,477	1,798	3,386	5,184
1942(b) ..	6,295	5,971	12,266	3,059	3,041	6,100	3,236	2,930	6,166
1943(b) ..	3,931	2,194	6,125	2,822	2,032	4,854	1,109	162	1,271
1944(b) ..	4,454	3,043	7,497	5,389	4,291	9,680	- 935	- 1,248	- 2,183

(a) Includes movements of defence personnel.

(b) Excludes movements of defence personnel.

NOTE.—Minus sign (-) indicates an excess of departures over arrivals.

Net migration has varied greatly during the foregoing periods, reaching a maximum in the five years 1921-25. The 1914-19 War, during which 331,781 members of the Australian Imperial Forces embarked for service overseas, was responsible for a very large increase in the departures during the years 1914-18. Immigration increased rapidly from 1910 to 1912, the gain during the latter year being the greatest in any one year in the present century (with the exception of 1919, when the troops were returning to Australia).

Although the quinquennium 1926-30 as a whole resulted in the considerable gain of 130,058 persons, the figures for the individual years reveal that a decline in immigration set in after 1927 which resulted in an actual loss of population by migration in 1930, 1931, 1932 and 1935.

The influence of the Commonwealth immigration policy is clearly reflected in the figures above. The average annual number of nominated and selected immigrants who arrived in Australia during the periods specified was as follows:—

IMMIGRATION : NUMBER OF NOMINATED AND SELECTED PERSONS.

Period.	Average Annual Number.	Year.	Recorded Number.
1901-05	Not available	1933	72
1906-10	7,945	1934	159
1911-15	30,111	1935	100
1916-20	2,326	1936	9
1921-25	23,090	1937	141
1926-30	19,881	1938	852
1931-35	156	1939	2,686
1936-40	766	1940	140
		Total to end of 1940	1,068,311

The number of nominated and selected immigrants reached its peak in 1926, when 31,260 arrivals were recorded. Assisted migration was discontinued for the duration of the war. For information on post-war plans see § 9 (A) following.

2. **Country of Embarkation and Disembarkation.**—The countries from which the migrants arrived or to which they departed are shown for 1944 in *Demography Bulletin* No. 62. Annual averages for the period 1925-29 appear in *Official Year Book* No. 25.

3. **Nationality or Race.**—The majority of migrants to and from Australia are of British nationality, while only a small proportion are of non-European race.

During the period 1926-30 there was such a considerable influx of Italian, Greek and Yugoslav settlers, that, despite considerable concurrent emigration, they provided a large permanent addition to the population of Australia. In the following quinquennium 1931-35, there was a considerably reduced increment to the Italian population by migration whilst there was actually an excess of departures of most other nationals. The five years 1936-40, however, saw a resumption of immigration of Southern Europeans, while refugees were responsible for the heavy increase in net immigration of German nationals. Usually there is an excess of departures of non-European people as a whole, but not of all non-European nationals. The numbers of arrivals and departures and the net gain or loss by migration during the five years 1936-40 and the years 1943 and 1944 classified according to nationality or race are shown in the following table:—

NATIONALITY OR RACE OF ARRIVALS AND DEPARTURES : AUSTRALIA.

Nationality or Race.	Arrivals.			Departures.			Net Migration.		
	1936-40.	1943.	1944.	1936-40.	1943.	1944.	1936-40.	1943.	1944.
American (U.S.)	10,671	1,574	1,221	10,179	997	948	492	577	273
British ..	254,803	2,749	5,285	240,138	3,405	7,487	14,665	656	2,202
French ..	2,597	186	356	2,595	147	288	2	39	68
German ..	9,514	23	22	2,212	13	18	7,302	10	4
Greek ..	4,399	2	17	921	5	7	3,478	3	10
Italian ..	10,520	12	4	2,870	1	3	7,650	11	1
Yugoslav ..	2,588	1	..	988	1	3	1,600	..	3
Other European	12,491	625	345	5,452	174	199	7,039	451	146
Total European	307,583	5,172	7,250	265,355	4,743	8,953	42,228	429	1,703
Chinese ..	7,804	139	40	7,633	37	431	171	102	391
Indian ..	..	..	..	..	..	..	..	..	..
Cingalese ..	2,387	20	107	2,258	35	44	129	15	63
Japanese ..	1,710	..	1	1,736	1	..	26	1	1
Other Non-European ..	1,828	794	99	1,202	38	252	626	756	153
Total Non-European	13,729	953	247	12,829	111	727	900	842	480
Total ..	321,312	6,125	7,497	278,184	4,854	9,680	43,128	1,271	2,183

NOTE.—Minus sign (—) indicates an excess of departures over arrivals.

Owing to the depressed economic conditions in Australia the gain by migration decreased rapidly during 1928 and 1929 and there were actual losses of population during the next three years. There was little variation in the figures for arrivals and departures from 1933 to 1936, but in 1938 the arrivals exceeded the departures by 9,137 and in 1939 the excess was 13,891, the greatest gain to the population by migration since 1928. The excess of arrivals over departures in 1940 was 13,400, but with the outbreak of War in the Pacific area, the figure fell to 5,184 for 1941, 6,166 for 1942, 1,271 for 1943 and in 1944 there was a net loss of 2,183 persons by migration.

Over 81 per cent. of the net migration in 1926-30 consisted of persons of British nationality and the remaining 19 per cent. were other Europeans. In the quinquennium, 1931-35, there was a loss by migration of persons of British nationality and a gain of those of Italian nationality. Non-Europeans, with the exception of Indians and Cingalese, also showed an excess of departures. During 1936-40 migrants of all nationalities except Japanese showed a gain. In 1944 the net loss of 2,183 persons was due in large measure to the departure for the United States of America of Australian brides of American servicemen.

4. *Classes of Arrivals and Departures.*—Since 1st July, 1924, the arrivals and departures have been classified according to the declared intention of the migrant in regard to intended residence. The figures for the quinquennial periods 1931-35 and 1936-40 and for the years 1942, 1943 and 1944 are as follows:—

MIGRANTS CLASSIFIED ACCORDING TO INTENDED RESIDENCE: AUSTRALIA.

Classification.	1931-35.	1936-40.	1942.	1943.	1944.
Permanent new arrivals ..	54,444	88,712	10,145	3,516	2,511
Australian residents returning from abroad ..	84,554	104,870	1,027	963	2,025
Temporary visitors ..	100,325	127,730	1,094	1,646	2,961
Total Arrivals ..	239,323	321,312	12,266	6,125	7,497
Australian residents departing permanently ..	71,670	51,006	1,609	1,929	4,272
Australian residents departing temporarily ..	79,426	94,650	522	676	2,605
Temporary visitors ..	99,108	132,528	3,969	2,249	2,803
Not Stated	5	..	..	..	..
Total Departures ..	250,209	278,184	6,100	4,854	9,680

NOTE.—The figures for permanent new arrivals for 1942, 1943, 1944 and 1936-40 include evacuees previously shown as temporary visitors. The number of evacuees arriving in Australia during the war years was as follows:—1940: 1,404 males, 3,139 females; 1941: 600 males, 1,670 females; 1942: 4,033 males, 4,105 females; 1943: 1,167 males, 591 females; 1944: 23 males, 28 females.

Although permanent new arrivals increased during each of the eight years prior to 1939 the number in the latter year was considerably below the annual average for the quinquennium 1926-1930 while the war caused a large drop in the number from 1940. Permanent departures were far more numerous in the years 1928 to 1931 than in earlier years but they declined during each of the six years ended 1937, the number in the latter year being the lowest yet recorded. Up to and including 1929 there was a considerable gain of permanent residents, but during 1930 and 1931 there was a heavy loss. The loss was very much reduced in 1932, 1933 and 1934, whilst during the five years up to and including 1939 there was a net gain in permanent residents of more than 28,000.

The figures in the table above are based on the information supplied by travellers at the time of arrival or departure. For various reasons the intentions of travellers are subject to subsequent modification, and the figures quoted in the table must therefore be accepted as a record of intention only.

§ 9. Immigration.

(A) Assisted Migration into Australia.

1. **Joint Commonwealth and States' Scheme.**—In 1920 an arrangement was arrived at between the Commonwealth and State Governments whereby the Commonwealth Government became responsible for the selection and medical inspection of British migrants from the United Kingdom, and for their transport to Australia. The State Governments advised the Commonwealth from time to time as to the numbers and classes of migrants they were prepared to receive, and became responsible for their subsequent settlement. In addition, personal and group nominations were accepted by the States, the nominators undertaking responsibility for their settlement and aftercare.

In 1930 owing to the financial and industrial depression it was decided to confine the grant of assisted passages to the wives and dependent children of men who arrived in Australia prior to 1st January, 1930.

On 4th March, 1938, the Commonwealth Government decided, in co-operation with the Government of the United Kingdom, to resume assisted migration, and provision was made for the grant of assisted passages from the United Kingdom in favour of—

- (a) persons (relatives and friends) resident in the United Kingdom nominated by individuals or approved organizations;
- (b) migrants specially requisitioned for by any State; and
- (c) persons of British stock resident in the United Kingdom, who would be in possession of—
 - (1) in the case of a married man, not less than £300 capital on arrival in Australia, or alternatively, a pension or other income of not less than £100 per annum;
 - (2) in the case of a single man not less than £50 capital on arrival.

It was also decided that the Commonwealth Government would co-operate with any State to the extent that the migration policy of that State coincided with the policy of the Commonwealth, provided that the Commonwealth would itself deal with nominations which did not fall within the ambit of the policy of any particular State, but which were acceptable under the Commonwealth policy.

2. **Number of Persons Assisted.**—The number of assisted migrants for the years 1931 to 1940 inclusive, and the total from the earliest years up to the end of 1940 (when immigration ceased) are given in the following table :—

IMMIGRATION : NUMBER OF PERSONS ASSISTED.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.
1931	76	45	43	6	99	5	1	275
1932	21	3	23	..	123	5	..	175
1933	11	3	1	1	56	..	..	72
1934	11	4	1	..	143	..	..	159
1935	1	..	1	..	98	..	..	100
1936	4	2	1	..	2	..	..	9
1937	60	33	6	3	39	..	..	141
1938	410	179	19	43	161	38	2	852
1939	1,309	544	376	126	304	24	3	2,686
1940	92	20	16	4	5	3	..	140
Total from earliest years to end of 1940	347,705	256,090	236,413	115,994	87,015	25,022	72	1,068,311

3. **Suspension of Assisted Passage Scheme during War.**—After the outbreak of hostilities in 1939 it was decided to discontinue the grant of assisted passages for the duration of the war. Resumption of assisted migration was the subject of recent negotiations between the Commonwealth and United Kingdom Governments.

4. **Free and Assisted Passage Agreement, March, 1945.**—(i) *General.* An agreement was signed in March, 1945, between the Commonwealth and British Governments for free and assisted passages for British residents desirous of migrating to Australia. As from the opening date (which is dependent on shipping conditions, and Australian problems of re-settlement), the Commonwealth Government will undertake to accept eligible persons provided they are medically fit and otherwise regarded as suitable for settlement. Information concerning conditions and opportunities for employment will be provided by the Australian High Commissioner for the guidance of all prospective settlers. Expenses incurred in the selection and medical examination of applicants will be borne by the Commonwealth Government, which has also undertaken to provide free transportation from the port of disembarkation to the ultimate destination in Australia, and accommodation for a limited period wherever necessary. In this connexion, the Commonwealth has undertaken to make adequate administrative arrangements with the States in regard to the reception, placement and aftercare of all migrants upon arrival, and to secure the co-operation of approved voluntary organizations.

Substantial rights, including health, medical services, sickness and unemployment benefits, maternity allowances and child endowment under the Australian Social Security Services Scheme will be extended to settlers as from the date of arrival; but it has not been possible to extend employment preference to British ex-service men and women. Intended settlers will not, however, be granted a passage unless there is a reasonable assurance that they will obtain employment on arrival.

Persons already established in Australia may nominate for assisted passages friends or relatives resident in the United Kingdom who are eligible for consideration.

It is intended that the scheme will remain operative only so long as favourable conditions for settlement are known to exist.

(ii) *Free Passages.* This part of the scheme will be financed by the United Kingdom as part of its re-settlement programme. Persons eligible for consideration are British ex-servicemen and women, wherever demobilized (together with their dependants), if they were resident in the British Isles or were in the United Kingdom Forces overseas on 1st September, 1938, and have served in a full-time capacity in the Armed Forces or Merchant Navy of the United Kingdom during any period after 25th May, 1939.

(iii) *Assisted Passages.* Assisted passages will be granted under the Empire Settlement Acts of the United Kingdom to suitable British subjects normally resident in the United Kingdom and who do not come within the scope of (ii) above. However, the Commonwealth normally will not be prepared to accept single persons or married persons without children if they are over 45 years of age. Married persons, if they are accompanied by one or more children, may be accepted up to 50 years of age, and in the case of parents who are joining children already established in Australia, the age limit may be extended to 60. Each settler, male or female, of 19 years of age and over will be required to contribute £10 toward the cost of a passage, and each juvenile of 14 but not more than 18, £5. Children under 14 years of age will travel free. The cost of the latter and the remainder of the cost of the others will be borne equally by the two Governments. A migrant not remaining in Australia for a minimum of two years will be liable for repayment of the amount of free grant.

(B) The Regulation of Immigration into Australia.

1. **Powers and Legislation of the Commonwealth.**—(i) *Constitutional.* Under Section 51, xxvii. and xxviii. of the Commonwealth Constitution, the Parliament of the Commonwealth is empowered to make laws with respect to immigration and emigration and the influx of criminals.

(ii) *Legislation.* A summary of the provisions of the Immigration Act 1901-1925 and the Contract Immigrants Act 1905 (except the provisions of the Amending Immigration Acts of 1920, 1924 and 1925, which will be found in Official Year Book No. 21, p. 927), containing particulars regarding the admission of immigrants, prohibited immigrants, the liabilities of shipmasters and others, and kindred matters will be found in preceding issues of the Official Year Book (see No. 12, pp. 1166-8).

The Immigration Act 1930.—Under this Act it is provided that Section 5, subsection (1) of the Immigration Act 1901-1925 applies to any person who, since the commencement of the Immigration Restriction Act 1901, evaded an officer when entering Australia, or gained admission or re-admission by fraudulent means. Steps can be taken to deal with such persons as prohibited immigrants at any time after they have landed in Australia.

The Immigration Act 1932.—This Act provides (a) that any alien who fails to satisfy an officer that he holds a landing permit, or that his admission has been authorized, may be prohibited from landing; (b) for the increase from three to five years of the period during which a person may be declared a prohibited immigrant; (c) that a person not a British subject and who has been convicted of a crime of violence against the person may be deported pursuant to an order of the Minister without his being subjected to a dictation test; (d) for the deportation of a person who has been convicted of a criminal offence or who has become an inmate of an insane asylum or public charitable institution within five years from the date of arrival instead of three years as hitherto; and (e) that where the wife of a person whom it is proposed to deport so desires, her name and the names of her dependent children may be included in her husband's deportation order. This would of course apply only to wives and children who were themselves immigrants.

The Immigration Act 1933.—This Act provides that Section 8A, as amended by the Immigration Act 1932—see (d) above—shall apply to persons who arrived in Australia since the commencement of the Section, i.e., since 2nd December, 1920. It also makes statutory provision for the taking of securities for compliance with the provisions of the Act.

The Immigration Act 1935.—The main purpose of this Act was to add a penalty clause to Section 5 of the principal Act, to overcome a legal difficulty which had arisen in regard to relying on Section 7 for the imposition of penalties on persons convicted under Section 5 on charges of being prohibited immigrants offending against the Act.

The Immigration Act 1940.—This Act provides (a) that the holder of a landing permit shall on demand satisfy an officer that he is able to comply with the conditions specified in the permit; (b) for the issue of, and extensions of, certificates of exemption; (c) that a non-British person who is convicted of a crime of violence against the person or of extorting any money or thing by force or threat, or of any attempt to commit such a crime or who is convicted of any other criminal offence for which he is sentenced to imprisonment for one year or longer may be deported; (d) for the exercise of discretion by the Minister in enforcing an order for the deportation of a person; and (e) for the provision and enforcement of maintenance guarantees in relation to persons seeking to enter Australia.

2. Conditions of Immigration into Australia.—(i) *Immigration of Non-European or Coloured Persons.* In pursuance of the established policy, the general practice is not to permit Asiatics or other coloured immigrants to enter Australia for the purpose of settling permanently.

Special arrangements were made with India, Japan and China under which facilities were afforded for subjects of those countries who were bona fide merchants, students, or tourists to enter and remain in Australia under exemption whilst they retained their status. Following on the outbreak of war, however, the entry of Asiatics other than the temporary admission of some refugees from Far Eastern countries and the Pacific Islands was suspended.

(ii) *Immigration of White Aliens.* Aliens seeking to enter Australia for permanent residence are required to obtain landing permits or special authority for admission from the Department of Immigration.

Following the outbreak of war, alien immigration into Australia was severely restricted, and the admission of aliens from European countries was virtually suspended.

Resumption of immigration to Australia in the post-war period is being considered by the Commonwealth Government.

A report has been made on the availability of European migrants by the committee representing the Commonwealth Parliament and employers' and employees' organizations which visited Europe in 1945 to attend the International Labour Office Conference, and was commissioned to act as an Australian Immigration Advisory Committee.

(iii) *General Information.* General information as to conditions of entry into Australia may be obtained from the following officers:—

- (a) In Australia: The Secretary, Department of Immigration, Canberra, A.C.T.,
 (b) in Great Britain: the Official Secretary, High Commissioner's Office, Australia House, Strand, London, (c) in other British Dominions: the High Commissioner for Australia (d) in other countries where Australia is represented: the Secretary, Australian Legation.

For details of the Dominions and countries included see Chapter III, § 6, pages 74 and 75.

3. *Persons Admitted Without Dictation Test.*—The following table shows the number and nationality of persons admitted during 1943 and 1944 without passing the dictation test. Persons who are permitted to land pending transhipment to another country are excluded.

**PERSONS ADMITTED WITHOUT DICTATION TEST : NATIONALITIES,
AUSTRALIA, 1943 AND 1944.**

Nationality or Race.	1943.	1944.	Nationality or Race.	1943.	1944.
Albanian .. ..	..	..	Swiss	4	5
American, United States	1,575	1,221	Turkish	2	3
American Negro ..	33	40	Yugoslav	1	..
Belgian	8	7	Other Whites ..	19	9
British	2,477	5,185	ASIATIC—		
Bulgarian .. ..	..	1	Chinese	855	528
Czechoslovak	3	3	Indian and Cingalese	752	838
Danish	5	11	Indonesian	22,104	21,022
Dutch	254	239	Japanese .. ..	..	..
Estonian .. ..	..	1	Javanese	(b)	(b)
Finnish .. ..	..	2	Koepanger .. ..	..	..
French	186	354	Malay	206	140
German	18	22	Palestinian .. ..	..	..
Greek	2	17	Syrian .. ..	..	..
Hungarian .. ..	..	..	Timorese	256	7
Italian	12	4	OTHER—		
Latvian .. ..	..	..	Pacific and South Sea		
Lithuanian .. ..	..	..	Islanders	189	48
Norwegian	4	12	Papuan and New		
Polish	16	25	Guinea Natives ..	107	20
Portuguese	229	..	Other and Unspecified	345	214
Rumanian .. ..	..	2			
Russian	74	21			
Spanish .. ..	..	..	
Swedish	7	8	Total	9,743	10,009

(a) Includes Javanese.

(b) Included with Indonesian.

4. *Departures of Persons of Non-European Races.*—The following figures in common with the other statistics in this sub-section have been compiled by the Department of Immigration and exclude transhipments. They are not therefore in agreement with departures, compiled in this Bureau and published elsewhere, which include transhipments.

The number of persons of non-European race who left Australia during 1943 and 1944 were 2,965 and 3,459 respectively, distributed among the various nationalities as follows (1943 figures shown in parenthesis):—American Negroes, 23 (20); Chinese 659 (384); Indonesians including Javanese, 1,389 (892); Indians and Cingalese, 907 (842); Malays, 106 (147); Pacific Islanders, 104 (157); Papuans and New Guinea Natives, 159 (28); Timorese, 2 (11); other coloured, 110 (484).

(C) Passports.

Provision is made in the Immigration Act 1901–1940 for the production of a passport by each person over 16 years of age who desires to enter Australia. Under the Passports Act 1920, it was compulsory also for each person over 16 years of age to be in possession of a passport or other document authorizing his departure. This Act has now been superseded by the Passports Act 1938, which repealed the compulsory provisions and is now simply a machinery measure governing the issue of passports and the grant of other passport facilities. The Act extends to the Territories of Australia, including Papua, Norfolk Island and the Mandated Territory of New Guinea.

Although not compulsory under the 1938 Act to be in possession of a passport when leaving Australia, it is very desirable in their own interests that Australians proceeding abroad should provide themselves with a passport as a means of establishing their identity and nationality. The possession of a passport is necessary for admission into most countries overseas, and the holder of an Australian passport also has no difficulty in landing on return to Australia. The charge for an Australian passport is £1; for an ordinary visa 8s. and for a transit visa, 2s. As a security measure and in order to control the movement of persons coming to or leaving Australia during the war the National Security (Passport) Regulations were promulgated in 1939. Under these Regulations all persons over sixteen years of age arriving in or leaving Australia are required to hold valid passports or other travel documents.

§ 10. Naturalization.

1. **Commonwealth Legislation.**—Naturalization in Australia is governed by the Nationality Act 1920–1936. The qualifications necessary for naturalization are:—(a) Residence in Australia continuously for not less than one year immediately preceding application for naturalization and previous residence either in Australia or in some other part of His Majesty's dominions for a period of four years within the last eight years before the application; (b) good character and an adequate knowledge of the English language; and (c) intention to settle in the British Empire.

The amending Act of 1936 provided for the charge of a prescribed fee for a certificate of naturalization. The fee is £5, except in the case of a certificate granted to a woman who was a British subject prior to her marriage to an alien, in which case the amount is 5s. An applicant who served with a good record in the Commonwealth Naval or Military Forces during the 1914–19 War or in the Defence Forces in the 1939–45 War, or the widow of a person who so served is exempt from payment of any fee. In the case of indigent persons the Minister may reduce the fee payable for a certificate of naturalization to 10s.

The amending Act of 1936 provided for certain alterations in the law dealing with the national status of married women, and vested in the Minister for the Interior (now vested in the Minister for Immigration) certain powers and functions hitherto exercised by the Governor-General.

The amending Act, which came into operation on 1st April, 1937, provided for the following exceptions to the general principle that the wife of a British subject shall be deemed to be a British subject, and the wife of an alien deemed to be an alien:—

- (a) a woman who was a British subject prior to her marriage to an alien does not cease to be a British subject unless by reason of her marriage she acquires her husband's nationality;

- (b) if a man, during the continuance of his marriage, ceases to be a British subject, his wife does not lose her British nationality unless she acquires her husband's new nationality ;
- (c) if a man, during the continuance of his marriage, ceases to be a British subject and his wife acquires his new nationality she may, within one year from the date on which she acquired her husband's new nationality, or within such further time as the Minister in special circumstances allows, make a declaration that she desires to retain her British nationality ;
- (d) if after 31st March, 1937, a certificate of naturalization is granted to an alien, his wife, if she is not already a British subject, shall not be deemed to be a British subject, unless, within one year from the date of such certificate, or within such further time as the Minister in special circumstances allows, she makes a declaration that she desires to acquire British nationality.
- (e) where an alien is a subject of a State at war with His Majesty, his wife, if she was a natural-born British subject, may, upon making a declaration that she desires to resume British nationality, be granted a certificate of naturalization.

Provision was also made in the amending Act whereby a woman who was a British subject prior to her marriage and who acquired her husband's nationality may make a declaration that she desires to retain, while in Australia or in a Territory to which the Act applies, the rights, powers and privileges of a British subject.

A summary of the main provisions of the principal Act appears in Official Year Book No. 22, pp. 934-5.

2. **Certificates Granted.**—(i) *Australia.* Particulars regarding the previous nationalities of the recipients of certificates of naturalization issued under the Act during the years 1943 and 1944, and the countries from which such recipients had come, are given in the following table :—

NATURALIZATION : CERTIFICATES GRANTED, 1943 and 1944.

Previous Nationalities of Recipients.

Nationality.	Certificates Granted.		Nationality.	Certificates Granted.	
	1943.	1944.		1943.	1944.
Albanian	70	60	Italian	73	371
American, United States ..	21	10	Japanese	2	1
Argentinian	1	..	Latvian	6	8
Armenian	1	..	Lebanese	9	10
Belgian	6	1	Lithuanian	1	3
British by local naturalization	2	2	Norwegian	24	17
Bulgarian	1	8	Palestinian	17	11
Chilean .. ..	..	1	Polish	179	172
Chinese .. ..	..	2	Rumanian	1	27
Czechoslovak	20	27	Russian	29	12
Danish	21	13	Spanish	4	10
Danziger .. ..	..	2	Swedish	23	19
Dutch	11	7	Swiss	9	8
Estonian	22	14	Syrian	15	6
Finnish	6	20	Turkish	8	1
French	9	10	Yugoslav	68	79
German	43	416	Stateless	24	1,004
Greek	168	165			
Hungarian	5	74			
Irish Free State .. ..	..	1			
			Total	899	2,592

NATURALIZATION: CERTIFICATES GRANTED, 1943 and 1944—*continued.*

Countries from which Recipients of Commonwealth Certificates had come.

Country.	Certificates Granted.		Country.	Certificates Granted.	
	1943.	1944.		1943.	1944.
Albania	66	56	Latvia	3	7
America, United States ..	27	21	Lebanon	8	8
Austria	3	201	Netherlands East Indies ..	2	9
Belgium	8	11	New Caledonia	6	4
Bulgaria	1	6	New Zealand	6	9
Canada	4	41	Norway	17	13
China	26	33	Palestine	24	26
Czechoslovakia	13	14	Poland	111	104
Danzig	1	6	Rumania	1	22
Denmark	6	9	Singapore	3	6
Egypt	35	31	South Africa	3	7
Estonia	13	13	Spain	2	5
Finland	1	17	Sweden	10	12
France	30	103	Switzerland	4	20
Germany	25	324	Syria	15	5
Great Britain	84	650	U.S.S.R. (Russia)	2	6
Greece	148	148	Yugoslavia	58	65
Hungary	1	17	Others	82	76
Holland	11	49			
India .. ..	..	8			
Italy	39	430	Total	899	2,592

(ii) *States.* The certificates of naturalization granted in 1944 (1943 figures in parenthesis) were issued in the various States and Territories as follows:—New South Wales, 1,227 (281); Victoria, 822 (346); Queensland, 185 (99); South Australia, 60 (35); Western Australia, 263 (131); Tasmania, 22 (4); Northern Territory, 7 (2); and Australian Capital Territory, 6 (1); Total 2,592 (899).

§ 11. Population of Territories.

At the Census of 30th June, 1933, special arrangements were made to obtain complete information concerning each of the six Territories of Australia including the Mandated Territories of New Guinea and Nauru, namely:—(1) Northern Territory; (2) Australian Capital Territory; (3) Norfolk Island; (4) Papua; (5) Mandated Territory of New Guinea; and (6) Mandated Territory of Nauru.

A summary of the figures as to the population and number of dwellings in each Territory at the Census of 1933 is given in the following table:—

POPULATION AND DWELLINGS: TERRITORIES, 30th JUNE, 1933.
(EXCLUDING INDIGENOUS POPULATION.)

Territory.	Population.			Dwellings.			
	Males.	Females.	Persons.	Occu- pied.	Unoccu- pied.	Being Built.	Total.
Northern Territory ..	3,378	1,472	4,850	1,301	55	1	1,357
Australian Capital Territory	4,805	4,142	8,947	1,995	103	5	2,103
Norfolk Island ..	662	569	1,231	383	34	6	423
Papua	1,232	941	2,173	683	35	1	719
Territory of New Guinea (Mandate)	3,709	1,507	5,216	1,776	26	7	1,809
Nauru (Mandate) ..	1,037	64	1,101	81	13	..	94

Particulars concerning the indigenous populations of the Territories of Australia are included in Chapter XL "The Territories of Australia".

A Census was taken in the Australian Capital Territory on 30th June, 1938, and the results were as follows:—

Population : Males, 6,286 ; Females, 5,276 ; Total, 11,562.

Occupied Dwellings : 2,477.

Since the 1933 Census the population had increased by 29 per cent. and the number of occupied dwellings by 24 per cent.

§ 12. The Aboriginal Population of Australia.

In Official Year Book No. 17, pp. 951-61, a brief account is given of the Australian aboriginal population, its origin, its numbers as estimated from time to time, and the steps taken for its protection. On pp. 914-16 of Official Year Book No. 22, particulars are shown for each of the States and Territories of Australia at successive periods, while a special article dealing with the estimated number and distribution of the native population at the date of first settlement of the white race in the continent appears on pp. 687-96 of Official Year Book No. 23.

The aborigines are scattered over the whole of the mainland, but the majority are concentrated in Western Australia, Queensland and the Northern Territory. At a Census of aborigines taken on 30th June, 1944, in all States except New South Wales, the following particulars were disclosed:—

ABORIGINAL CENSUS, 30th JUNE, 1944.

State or Territory.	Full-blood.					Half-caste.					Total Full-blood and Half-caste.
	Nomadic.	In Employment.	In Supervised Camps. (a)	Other.	Total.	Nomadic.	In Employment.	In Supervised Camps. (a)	Other.	Total.	
New South Wales (b)	40	112	314	128	594	505	2,057	3,403	4,057	10,022	10,616
Victoria ..	6	14	6	3	29	80	230	150	465	925	954
Queensland (c) ..	931	3,144	2,782	1,122	7,979	84	2,083	1,487	1,892	5,546	13,525
South Australia ..	1,399	484	667	318	2,868	493	409	970	336	2,208	5,076
Western Australia	14,553	4,966	2,118	573	22,210	276	2,872	1,001	733	4,882	27,092
Tasmania ..	..	2	..	..	2	..	124	..	251	375	377
Northern Territory	4,735	2,965	5,631	..	13,331	..	349	226	247	822	14,153
Australian Capital Territory ..	..	..	1	..	1	..	26	75	..	101	102
Australia ..	21,664	11,687	11,519	2,144	47,014	1,438	8,150	7,312	7,981	24,881	71,895

(a) This figure does not include those living in supervised camps who were in regular employment.
 (b) At 30th June, 1941. (c) Excludes Torres Strait Islanders (1,064 in regular employment, 2,754 in supervised camps, and 82 other).

§ 13. The Chinese in Australia.

In Official Year Book No. 18, pp. 951-6, a brief historical sketch is given regarding "The Chinese in Australia".

§ 14. The Pacific Islanders in Australia.

In Official Year Book No. 19, pp. 902-3, a brief account is given of the introduction of Kanakas into Australia.

CHAPTER XV. VITAL STATISTICS.

[NOTE.—In the Vital Statistics chapter of the previous issue of this volume tables covering a single year only related to 1941. In the present issue these tables cover 1944 and, where possible, 1942 and 1943. In some cases, however, space does not permit of the inclusion of figures for 1942 and 1943. These figures will be found in *Demography Bulletin* Nos. 60 and 61 unless otherwise specifically indicated.]

§ 1. Marriages.

1. **Number, 1944.**—The number of marriages registered in Australia during the year ended 31st December, 1944, was 68,201, giving a rate of 9.33 per 1,000 of the mean population for the year. In 1942 both the number and the rate were the highest on record. A summary of the number of marriages in each State and Territory at intervals since 1901 is given in the following table :—

MARRIAGES.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
1901 ..	10,538	8,406	3,341	2,304	1,821	1,338	5	(a)	27,753
1911 ..	15,278	11,088	5,167	4,036	2,421	1,477	10	5	39,482
1921 ..	18,506	13,676	5,963	4,383	2,656	1,668	15	2	46,869
1931 ..	15,377	10,182	5,951	3,069	2,741	1,501	25	36	38,882
1939 ..	25,471	17,368	9,108	5,670	4,195	2,264	85	88	64,249
1940 ..	30,364	22,299	10,287	6,950	5,234	2,476	154	125	77,889
1941 ..	29,983	20,898	9,885	6,855	5,077	2,150	179	121	75,148
1942 ..	34,533	23,636	11,722	8,129	5,441	2,431	53	115	86,060
1943 ..	26,302	18,356	9,979	6,263	4,528	2,102	46	97	67,673
1944 ..	26,426	17,857	11,325	6,019	4,506	1,935	31	102	68,201

(a) Part of New South Wales.

2. **Crude Marriage-rates.**—The crude marriage-rates for each State and Territory for a series of years are given hereunder :—

CRUDE MARRIAGE-RATES.(a)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
1901 ..	7.73	6.99	6.66	6.45	9.68	7.76	1.05	(b)	7.32
1911 ..	9.19	8.40	8.41	9.80	8.44	7.77	3.02	2.81	8.79
1921 ..	8.78	8.90	7.82	8.82	7.95	7.82	3.83	0.80	8.59
1931 ..	6.02	5.66	6.43	5.33	6.34	6.68	5.04	4.09	5.96
1933 ..	7.07	6.96	6.84	6.84	7.69	7.13	5.76	(c)5.84	7.03
1934 ..	7.70	7.57	7.99	7.39	8.34	7.32	6.08	(c)6.15	7.71
1935 ..	8.45	8.38	8.57	8.28	8.85	8.17	8.23	(c)7.60	8.45
1936 ..	8.57	8.61	8.49	8.82	9.43	8.97	7.80	(c)7.48	8.66
1937 ..	8.61	8.74	8.44	9.06	9.18	8.73	12.75	(c)5.60	8.70
1938 ..	9.03	9.16	8.85	9.26	9.03	8.83	11.70	6.74	9.05
1939 ..	9.27	9.23	8.98	9.51	9.01	9.51	14.17	7.28	9.23
1940 ..	10.95	11.71	10.03	11.60	11.11	10.30	24.62	9.22	11.08
1941 ..	10.74	10.79	9.53	11.38	10.72	8.96	28.52	8.23	10.58
1942 ..	12.25	12.03	11.29	13.31	11.37	10.10	10.84	7.86	12.00
1943 ..	9.26	9.27	9.49	10.18	9.44	8.67	8.94	6.87	9.36
1944 ..	9.20	8.94	10.63	9.68	9.28	7.88	5.99	7.06	9.33

(a) Number of marriages (not persons married) per 1,000 of mean population. (b) Part of New South Wales. (c) Revised rates based on mean population adjusted in accordance with the results of the Census of 30th June, 1938. See letterpress on page 461.

As the marriage-rates in some international tabulations are based on the unmarried population aged 15 years and over, the corresponding rates have been calculated for Australia for the last six census periods. The period in each case comprises the census year with the year immediately preceding and the year immediately following, and the figures are as follows:—1880-82, 48.98; 1890-92, 45.74; 1900-02, 42.14; 1910-12, 50.44; 1920-22, 56.02; and 1932-34, 42.88. These rates refer, of course, to persons married, and not to marriages as is the case in the preceding table.

3. **Crude Marriage-rates of Various Countries.**—The following table gives the crude marriage-rate for Australia and each State thereof in comparison with the rates for various other countries. Later figures than 1939 are not shown as they are based on population estimates the comparability of which is open to doubt because of the abnormal distribution of population during war-time.

CRUDE MARRIAGE-RATES (a) : VARIOUS COUNTRIES.

Country.	1908-13.	1921-25.	1926-30.	1931-35.	1939.
Germany	7.8	9.4	8.7	9.3	11.2
New Zealand (b)	8.5	8.0	7.7	7.3	11.1
Union of South Africa (b)	(c)	8.0	9.3	9.4	10.8
England and Wales	7.6	7.8	7.7	8.1	10.6
United States of America	(c)	10.6	9.9	9.2	10.5
Great Britain and Northern Ireland	7.3	7.7	7.5	7.9	10.4
Sweden	6.0	6.3	6.7	7.3	9.7
Chile	(c)	6.9	9.3	6.9	9.6
South Australia	9.1	8.1	7.0	6.8	9.5
Tasmania	7.9	7.4	7.1	7.2	9.5
Denmark	7.3	7.9	7.8	8.7	9.5
New South Wales	8.8	8.2	8.0	7.2	9.3
Australia	8.4	8.1	7.6	7.2	9.2
Victoria	8.0	8.3	7.4	7.0	9.2
Netherlands	7.5	8.2	7.7	7.2	9.2
Scotland	6.7	7.1	6.7	7.1	9.2
Canada	(c)	7.3	7.3	6.4	9.2
Queensland	8.2	7.5	6.9	7.3	9.0
Western Australia	8.1	7.3	8.0	7.6	9.0
Norway	6.2	6.3	6.1	6.5	8.9
Hungary	(c)	10.0	9.2	8.5	8.8
Finland	6.1	7.1	7.2	7.2	8.3
Poland	7.0	9.9	9.2	8.4	(d) 8.1
Rumania	9.5	10.4	9.4	9.0	7.9
Yugoslavia	(c)	10.6	9.5	7.8	7.9
Japan	9.3	8.8	8.0	7.6	(d) 7.5
Switzerland	7.3	7.7	7.5	7.7	7.5
Italy	7.7	9.0	7.3	6.8	7.3
Argentina	6.8	7.2	7.4	6.5	7.2
Czechoslovakia	7.7	10.0	9.3	8.2	(d) 7.2
Northern Ireland	5.2	6.2	5.9	6.2	7.1
Mexico	(c)	(c)	(c)	6.1	6.9
Belgium	7.9	10.6	9.1	7.8	6.5
Greece	(c)	7.5	7.1	6.8	(d) 6.5
Portugal	6.9	7.9	6.9	6.6	6.4
France	7.9	9.5	8.2	7.4	6.2
Spain	7.0	7.3	7.3	6.5	5.7
Eire	5.2	4.9	4.6	4.6	5.2

(a) Number of marriages per 1,000 of mean population.
available.

(b) White population only.

(c) Not

(d) 1938.

4. **Age and Conjugal Condition at Marriage.**—(i) *General.* Age at marriage in single ages and previous conjugal condition of bridegrooms and brides in 1942, 1943 and 1944 will be found in *Demography Bulletin* Nos. 60-62. A summary in age-groups is given hereunder. There were 4,419 males aged less than twenty-one years married

during 1944 while the corresponding number of females was 18,322. At the other extreme there were 67 men aged sixty-five years and over who described themselves as bachelors, and 34 spinsters of corresponding age.

Information regarding the percentage distribution of bridegrooms and brides is shown for 1911, 1921, 1931 and 1941 to 1944 in the lower part of the table.

AGE AND CONJUGAL CONDITION OF PERSONS MARRIED : AUSTRALIA.

Age at Marriage (Years).	Bridegrooms.				Brides.			
	Bachelors.	Widowers.	Divorced.	Total.	Spinsters.	Widows.	Divorced.	Total.

1942.								
Under 20..	2,024	..	..	2,024	12,659	8	1	12,668
20-24 ..	31,891	18	35	31,944	40,574	78	152	40,804
25-29 ..	26,596	140	257	26,993	17,036	237	536	17,809
30-34 ..	10,599	278	549	11,426	5,837	359	672	6,868
35-39 ..	4,739	386	569	5,694	2,397	362	510	3,269
40-44 ..	2,151	437	470	3,058	1,047	451	377	1,875
45-49 ..	986	551	324	1,861	596	463	216	1,275
50-54 ..	475	556	189	1,220	230	347	104	681
55-59 ..	245	476	99	820	115	208	40	363
60-64 ..	101	318	42	461	38	182	10	230
65 and over	74	472	13	559	31	180	7	218
Total ..	79,881	3,632	2,547	86,060	80,560	2,875	2,625	86,060

1943.								
Under 20..	1,894	..	..	1,894	11,054	6	6	11,066
20-24 ..	25,842	34	32	25,908	31,330	110	159	31,599
25-29 ..	19,249	113	312	19,674	12,106	225	533	12,864
30-34 ..	7,889	238	459	8,586	4,399	296	625	5,320
35-39 ..	3,599	354	572	4,525	1,849	317	484	2,650
40-44 ..	1,735	387	424	2,546	907	372	344	1,623
45-49 ..	867	470	293	1,630	478	370	214	1,062
50-54 ..	420	525	197	1,142	260	305	87	652
55-59 ..	208	469	103	780	106	235	48	389
60-64 ..	103	340	36	479	53	176	23	252
65 and over	65	422	22	509	27	164	5	196
Total ..	61,871	3,352	2,450	67,673	62,569	2,576	2,528	67,673

1944.								
Under 20..	1,959	..	1	1,960	11,628	9	7	11,644
20-24 ..	26,970	30	68	27,068	31,767	177	254	32,198
25-29 ..	18,878	130	356	19,364	11,118	304	676	12,098
30-34 ..	7,668	239	647	8,554	4,177	328	765	5,270
35-39 ..	3,339	348	645	4,332	1,861	371	548	2,780
40-44 ..	1,598	378	484	2,460	881	366	350	1,597
45-49 ..	770	439	319	1,528	480	391	244	1,115
50-54 ..	373	507	212	1,092	234	303	105	642
55-59 ..	198	491	105	794	139	226	36	401
60-64 ..	101	346	53	500	51	180	18	249
65 and over	67	458	24	549	34	165	7	206
Not stated	..	..	..	..	1	..	..	1
Total ..	61,921	3,366	2,914	68,201	62,371	2,820	3,010	68,201

AGE AND CONJUGAL CONDITION OF PERSONS MARRIED:
AUSTRALIA—continued.

Year of Marriage.	Bridegrooms.				Brides.			
	Bachelors.	Widowers.	Divorced.	Total.	Spinsters.	Widows.	Divorced.	Total.
PERCENTAGE OF TOTAL.								
	%	%	%	%	%	%	%	%
1911 ..	93.70	5.84	0.46	100.00	94.60	4.68	0.72	100.00
1921 ..	92.43	6.37	1.20	100.00	92.85	5.91	1.24	100.00
1931 ..	92.04	6.09	1.87	100.00	93.89	4.02	2.09	100.00
1941 ..	92.64	4.46	2.90	100.00	93.10	3.64	3.26	100.00
1942 ..	92.82	4.22	2.96	100.00	93.61	3.34	3.05	100.00
1943 ..	91.43	4.95	3.62	100.00	92.46	3.81	3.73	100.00
1944 ..	90.79	4.94	4.27	100.00	91.45	4.14	4.41	100.00

(ii) *Relative Ages of Bridegrooms and Brides.* The relative ages of bridegrooms and brides in 1942, 1943 and 1944 are shown in single years in *Demography Bulletin* Nos. 60-62. A summary in age-groups of five years is given below:—

RELATIVE AGES OF BRIDEGROOMS AND BRIDES: AUSTRALIA.

Age of Bridegrooms (Years).	Total Bride- grooms.	Age of Brides (Years).							
		Under 15.	15-19.	20-24.	25-29.	30-34.	35-39.	40-44.	45 and Over.
1942.									
Under 20..	2,024	5	1,375	602	36	5	1	..	..
20-24 ..	31,944	4	8,012	20,727	2,890	262	39	7	3
25-29 ..	26,993	..	2,562	14,537	8,135	1,500	210	30	19
30-34 ..	11,426	2	505	3,601	4,286	2,284	587	113	48
35-39 ..	5,694	..	145	945	1,652	1,546	980	311	115
40-44 ..	3,058	..	33	270	530	754	721	503	247
45-49 ..	1,861	..	16	84	178	318	413	423	429
50-54 ..	1,220	..	6	25	68	123	189	273	536
55-59 ..	820	..	3	7	23	53	88	135	511
60-64 ..	461	..	..	4	8	14	25	48	362
65 and over	559	..	..	2	3	9	16	32	497
Total Brides	86,060	11	12,657	40,804	17,809	6,868	3,269	1,875	2,767
1943.									
Under 20..	1,894	4	1,291	564	32	3	..	..	..
20-24 ..	25,908	6	7,006	16,507	2,118	230	33	7	1
25-29 ..	19,674	3	2,103	10,633	5,624	1,085	187	30	9
30-34 ..	8,586	1	464	2,784	3,114	1,670	420	101	32
35-39 ..	4,525	..	129	784	1,310	1,196	736	257	113
40-44 ..	2,546	..	42	210	404	667	592	404	227
45-49 ..	1,630	..	6	77	165	275	353	358	396
50-54 ..	1,142	..	5	23	65	112	188	236	513
55-59 ..	780	..	6	8	18	56	92	121	479
60-64 ..	479	..	..	5	8	21	29	75	341
65 and over	509	..	..	4	6	5	20	34	440
Total Brides	67,673	14	11,052	31,599	12,864	5,320	2,650	1,623	2,551

RELATIVE AGES OF BRIDEGROOMS AND BRIDES: AUSTRALIA—*continued*.

		Age of Brides (Years).								
Age of Bridegrooms (Years).	Total Bride- grooms.	Under 15.	15-19.	20-24.	25-29.	30-34.	35-39.	40-44.	45 and Over.	
1944.										
Under 20..	1,960	I	1,344	585	28	2	..	..	..
20-24 ..	27,068	5	7,280	17,402	2,110	230	31	9	I	
25-29 ..	19,364	5	2,308	10,339	5,386	1,089	191	30	16	
30-34 ..	8,554	I	546	2,825	2,821	1,705	508	108	40	
35-39 ..	(a)4,331	I	104	746	1,160	1,202	773	259	86	
40-44 ..	2,460	..	36	200	379	577	621	409	238	
45-49 ..	1,528	..	9	63	124	262	347	327	396	
50-54 ..	1,092	..	I	19	56	122	170	234	490	
55-59 ..	794	..	I	12	24	53	91	135	478	
60-64 ..	500	..	I	4	8	23	34	52	378	
65 and over	549	..	I	3	2	5	14	34	490	
Total Brides	a68,200	13	11,631	32,198	12,098	5,270	2,780	1,597	2,613	

(a) Excludes 1 marriage, age of bride not stated.

(iii) *Average Ages, Bridegrooms and Brides.* The age at marriage of brides declined slightly during recent years to an average of about 25½ years, although in the period 1937-39 this decline was temporarily arrested and the average rose to almost 26 years. The ages for the past six years were:—1939, 25.87; 1940, 25.74; 1941, 25.75; 1942, 25.55; 1943, 25.62; and 1944, 25.57. For the following five-yearly periods the average ages were:—1911-15, 25.76 years; 1916-20, 26.05 years; 1921-25, 25.76 years; 1926-30, 25.57 years; 1931-35, 25.50 years; and 1936-40, 25.72 years. The average age of bridegrooms was 29.39 in 1939; in 1940, 29.08; in 1941, 29.04; in 1942, 28.80; in 1943, 28.99; and in 1944, 28.85 years. It follows, therefore, that brides are, generally speaking, three and one-half years younger than bridegrooms. The average age of brides and bridegrooms for the years 1940-44 shows the effects of war-time conditions. The proportion of young persons marrying during those years increased, thereby causing decreases in the average ages of both brides and bridegrooms. The difference in age between brides and bridegrooms was 3.52 years in 1939, 3.34 in 1940, 3.29 in 1941, 3.25 in 1942, 3.37 in 1943 and 3.28 in 1944.

5. *Previous Conjugal Condition.*—The number of bachelors and spinsters, widowed and divorced persons, who were married during 1944 has already been given. The following table shows the conjugal condition of the contracting parties. Corresponding figures for 1942 and 1943 may be obtained from *Demography Bulletin* Nos. 60 and 61.

PREVIOUS CONJUGAL CONDITION OF PERSONS MARRIED: AUSTRALIA, 1944.

Conjugal Condition of Bridegrooms.	Total Bridegrooms.	Conjugal condition of Brides.		
		Spinsters.	Widows.	Divorced.
Bachelors ..	61,921	58,378	1,485	2,058
Widowers ..	3,366	1,915	1,024	427
Divorced ..	2,914	2,078	311	525
Total Brides	68,201	62,371	2,820	3,010

6. *Birthplace of Persons Married.*—A table showing birthplace of persons who were married in 1911, 1921 and 1940 may be found on p. 326 of Official Year Book No. 34. In *Demography Bulletin*, No. 58, the relative birthplaces of bridegrooms and

brides married in 1940 will be found tabulated in detail. Tabulations for subsequent years were discontinued but will be revived for 1945.

7. **Occupation and Age of Bridegrooms.**—For 1938 the average ages at marriage of bridegrooms in the larger classes of occupations were as follows:—Professional, 30.8 years; Domestic, 30.5 years; Commercial, 29.6 years; Transport, 29.8 years; Industrial, 28.9 years; and Primary Producers, 30.9 years. Tabulation of this information was discontinued during the war years.

8. **Celebration of Marriages.**—In all the States marriages may be celebrated either by ministers of religion who are registered for that purpose with the Registrar-General, or by certain civil officers—in most cases district registrars. Most of the marriages are celebrated by ministers of religion. The registered ministers in 1944 belonged to more than forty different denominations, some of which, however, can hardly be regarded as having any valid existence. A number of these have been bracketed under the heading "Other Christian." The figures for 1944 are shown in the following table. Corresponding figures for 1942 and 1943 may be obtained from *Demography Bulletin* Nos. 60 and 61.

MARRIAGES IN EACH DENOMINATION, 1944.

Denomination.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia.	
									No.	Per Cent.
Church of England ..	11,229	5,861	3,331	1,526	1,907	812	15	47	24,728	36.26
Roman Catholic ..	5,349	3,427	2,535	745	679	307	6	34	13,082	19.18
Methodist ..	2,890	2,645	2,131	1,967	643	306	5	3	10,590	15.53
Presbyterian ..	3,128	3,406	1,970	311	444	125	2	8	9,394	13.77
Baptist ..	425	567	288	206	65	77	..	..	1,628	2.39
Congregational ..	491	249	142	249	106	47	..	2	1,286	1.88
Church of Christ ..	100	333	102	201	52	12	..	..	800	1.17
Lutheran ..	30	74	203	259	3	..	1	..	570	0.84
Salvation Army ..	99	87	131	42	26	12	..	..	397	0.58
Seventh-Day Adventist ..	65	31	23	9	14	7	..	..	149	0.22
Greek Orthodox ..	50	17	22	5	15	..	..	..	109	0.16
Unitarian ..	5	23	..	6	..	1	..	..	35	0.05
Other Christian ..	130	77	137	23	34	14	..	..	415	0.61
Hebrew ..	91	121	12	..	8	1	..	..	233	0.34
Civil Officers ..	2,344	939	298	470	510	214	2	8	4,785	7.02
Total ..	26,426	17,857	11,325	6,019	4,506	1,935	31	102	68,201	100.00
Marriages celebrated by—										
Ministers of Religion per cent.	91.13	94.74	97.37	92.19	88.68	88.94	93.55	92.16	92.98	..
Civil Officers per cent.	8.87	5.26	2.63	7.81	11.32	11.06	6.45	7.84	7.02	..

§ 2. Fertility and Reproduction.

1. **Introductory.**—Of the two elements of increase in the population, namely natural increase and net migration, the former has become by far the more important over the past few decades. The level of natural increase depends on the excess of births over deaths and the relation between fertility and mortality determines the rate of reproduction or replacement of the population.

2. **Number of Live Births.**—(i) *Year 1944.* There are various methods of measuring the fertility of the population by relating the number of births to the numbers in the population. In each the basic data are, of course, the number of live births.

The number of live births registered in Australia during 1944 is shown in the table below. The table shows also the number of confinements resulting in one or more live births. The figures exclude cases where the births were of still-born children only (estimated to number approximately 4,300 during 1944). Corresponding figures for 1942 and 1943 may be obtained from *Demography Bulletin* Nos. 60 and 61.

LIVE BIRTHS, 1944.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aus.	W. Aus.	Tas.	N.T.	A.C.T.	Australia.
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MALE BIRTHS.

Single births	29,654	19,712	12,245	6,659	5,386	2,637	44	190	76,527
Twins ..	697	419	305	139	155	60	..	9	1,784
Triplets ..	9	11	8	..	3	..	..	..	31
Total ..	30,360	20,142	12,558	6,798	5,544	2,697	44	199	78,342

FEMALE BIRTHS.

Single births	28,609	18,780	11,675	6,381	5,193	2,444	45	174	73,301
Twins ..	635	428	286	129	133	59	..	11	1,681
Triplets ..	8	8	1	3	..	..	..	..	26
Total ..	29,252	19,216	11,962	6,513	5,326	2,503	45	185	75,002

TOTAL BIRTHS.

Single births	58,263	38,492	23,920	13,040	10,579	5,081	89	364	149,828
Twins ..	(a) 1,332	(b) 847	(c) 591	268	(d) 288	(e) 119	..	20	(f) 3,465
Triplets ..	(g) 17	(h) 19	9	3	3	..	..	..	(i) 51
Total ..	59,612	39,358	24,520	13,311	10,870	5,200	89	384	153,344

TOTAL CONFINEMENTS (LIVE BIRTHS).

Mothers of Nuptial Children ..	56,431	37,411	22,486	12,782	10,289	4,928	83	369	144,779
Mothers of Ex-nuptial Children ..	2,530	1,524	1,733	393	440	214	6	5	6,845
Total Mothers	58,961	38,935	24,219	13,175	10,729	5,142	89	374	151,624

(a) Excludes 52 still-born twins. (b) Excludes 25 still-born twins. (c) Excludes 1 still-born twin.
 (d) Excludes 10 still-born twins. (e) Excludes 3 still-born twins. (f) Excludes 91 still-born twins.
 (g) Excludes 1 still-born triplet. (h) Excludes 2 still-born triplets.
 (i) Excludes 3 still-born triplets.

(ii) *Years 1901 to 1944.* A summary of the total number of live births in each State and Territory at intervals since 1901 is given in the following table:—

LIVE BIRTHS.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
1901 ..	37,875	31,008	14,303	9,079	5,718	4,930	32	(a)	102,945
1911 ..	47,537	33,026	16,984	11,057	8,091	5,437	31	30	122,193
1921 ..	54,636	35,591	20,329	11,974	7,807	5,755	79	27	136,198
1931 ..	47,721	30,332	17,833	9,079	8,549	4,762	72	161	118,509
1939 ..	48,003	30,493	20,348	9,618	9,036	5,004	138	251	122,891
1940 ..	49,382	31,962	20,412	10,017	9,121	4,994	173	286	126,347
1941 ..	51,729	34,406	21,519	10,965	10,118	5,206	216	366	134,525
1942 ..	52,647	35,927	21,166	11,278	9,901	5,305	92	392	136,708
1943 ..	57,265	39,117	23,234	13,145	10,481	5,597	80	376	149,295
1944 ..	59,612	39,358	24,520	13,111	10,870	5,200	89	384	153,344

(a) Part of New South Wales prior to 1911.

3. *Crude Birth-rates.*—The oldest and most popular method of measuring fertility is to relate the number of births to the total population, thus obtaining the crude birth-rate. The crude birth-rate measures the rate per thousand persons (irrespective of age or sex) at which the population has added to its numbers by way of births during a given period.

Crude birth-rates at intervals from 1901 to 1944 for each State and Territory are set out below:—

CRUDE BIRTH-RATES.(a)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Australia.
1901 ..	27.78	25.77	28.52	25.41	30.39	28.58	6.72	(b)	27.16
1911 ..	28.58	25.01	27.63	28.86	28.22	28.60	9.36	16.84	27.20
1921 ..	25.91	23.16	26.68	24.09	23.37	26.97	20.18	10.86	24.95
1931 ..	18.67	16.86	19.28	15.77	19.77	21.18	14.52	18.29	18.16
1934 ..	16.52	15.20	18.17	14.50	17.66	19.51	17.84	(c) 14.20	16.39
1935 ..	16.89	15.16	18.31	14.14	18.23	19.41	16.47	(c) 15.20	16.55
1936 ..	17.31	15.63	19.17	15.17	18.84	19.84	21.50	(c) 15.35	17.13
1937 ..	17.63	16.02	19.36	15.25	18.95	20.69	18.30	(c) 18.99	17.43
1938 ..	17.39	16.25	18.98	15.88	19.87	20.82	17.81	17.98	17.46
1939 ..	17.47	16.20	20.07	16.13	19.41	21.02	23.00	20.76	17.65
1940 ..	17.81	16.79	19.89	16.72	19.37	20.77	27.66	21.10	17.97
1941 ..	18.53	17.77	20.74	18.21	21.35	21.71	34.42	24.89	18.94
1942 ..	18.68	18.28	20.39	18.46	20.68	22.04	18.81	26.80	19.06
1943 ..	20.16	19.75	22.09	21.36	21.85	23.10	15.55	26.64	20.65
1944 ..	20.76	19.70	23.02	21.40	22.39	21.19	17.18	26.58	20.99

(a) Number of births per 1,000 of mean population. (b) Part of New South Wales prior to 1911.
(c) Revised rates based on mean population adjusted in accordance with the results of the Census of 30th June, 1938. See letterpress on p. 461. (c) Subject to revision.

NOTE.—The birth-rates in the table above are based on live births registered in the respective States and Territories. Until recently a large proportion of births in respect of which the mother's usual residence was the Australian Capital Territory took place in Queanbeyan, just over the New South Wales border, but with improved hospital facilities in the Territory the movement to outside hospitals rapidly diminished and was actually reversed in 1939. The following rates, based on births in respect of which the mother's usual residence is the Australian Capital Territory, are a truer measure of birth-rates in the Australian Capital Territory:—

1934 ..	17.59	1938 ..	18.88	1942 ..	22.56
1935 ..	19.52	1939 ..	19.85	1943 ..	22.18
1936 ..	17.97	1940 ..	20.14	1944 ..	21.05
1937 ..	21.28	1941 ..	24.14		

The variations similarly caused in the birth-rates for the States and Northern Territory by referring the birth registrations to the State or Territory in which the mother was usually resident are shown by the following corrected rates for 1944:—New South Wales, 20.79; Victoria, 19.66; Queensland, 23.08; South Australia, 21.42; Western Australia, 22.39; Tasmania, 21.22; and Northern Territory, 17.18

The preceding table shows a marked reduction in the crude birth-rate since 1901. In the earlier years of the century the rate fluctuated somewhat and 28.60 was recorded in 1912, but from that year onwards there was an almost continuous decline to the very low figure of 16.39 in 1934. The decline in the depression years was to some extent occasioned by the postponement of marriages but with subsequent improvement in economic conditions the rate rose. Since 1940 the rate has increased quite appreciably due both to a continued improvement in the economic welfare of the community and the war-time boom in marriages. The latter has resulted in an abnormal number of first births but investigation indicates that rates for births other than first were generally slightly higher than might have been expected from pre-war experience.

4. **Crude Birth-rates of Various Countries.**—The following table gives the crude birth-rates for Australia and each State in comparison with the rates for various other countries. Later figures than 1939 are not shown, as they are based on population estimates whose comparability is open to doubt because of the abnormal distribution of population during war-time.

CRUDE BIRTH-RATES (a) : VARIOUS COUNTRIES.

Country.	1908-13.	1921-25.	1926-30.	1931-35.	1939.
Mexico	(c)	(f) 31.9	36.7	43.1	44.6
Egypt	43.6	43.0	44.3	42.9	42.2
Ceylon	36.9	39.2	40.4	36.9	36.0
Chile	(d) 39.9	39.4	41.6	33.6	33.4
Rumania	43.1	37.9	35.2	32.9	28.3
Japan	32.9	34.6	33.5	31.6	26.3
Portugal	34.6	33.2	31.2	29.0	26.2
Yugoslavia	(c)	35.0	34.2	31.8	25.9
Union of South Africa (b)	(d) 31.9	27.1	25.9	24.1	25.3
Poland	37.4	34.7	32.2	27.8	(h) 24.6
Argentina	37.1	32.4	30.1	26.4	24.0
Greece	(c)	23.0	30.2	29.5	23.5
Italy	32.4	29.8	26.8	23.8	23.5
Finland	29.5	24.7	22.5	19.5	21.1
Tasmania	29.6	26.0	22.7	20.0	21.0
Netherlands	29.1	25.7	23.2	21.2	20.6
Germany	29.5	22.1	18.4	16.6	20.4
Canada	(c)	27.4	24.1	21.4	20.3
Queensland	28.2	25.0	21.3	18.5	20.1
Hungary	(d) 34.3	29.4	26.0	22.4	19.6
Northern Ireland	23.1	23.1	21.2	20.0	19.5
Western Australia	28.9	23.0	22.0	18.4	19.4
Eire	23.1	20.3	20.1	19.4	19.1
New Zealand (b)	26.5	22.2	19.7	17.0	18.7
Denmark	27.1	22.3	19.4	17.7	17.8
Australia	27.4	23.9	21.1	16.9	17.7
New South Wales	28.2	24.9	22.1	17.3	17.5
Scotland	26.2	23.0	20.0	18.2	17.4
United States of America	(e) 25.1	22.5	19.7	(g) 16.9	17.3
Czechoslovakia	31.1	27.1	23.2	19.6	(h) 16.8
Spain	32.1	29.8	28.5	27.1	16.5
Victoria	25.3	22.4	19.7	15.6	16.2
South Australia	27.1	22.7	19.2	14.9	16.1
Norway	26.0	22.2	18.0	15.2	15.9
Sweden	24.4	19.1	15.9	14.1	15.4
Belgium	23.4	20.4	18.6	16.8	15.3
Switzerland	24.7	19.5	17.6	16.4	15.2
Great Britain and Northern Ireland	24.6	20.4	17.2	15.5	15.2
England and Wales	24.9	19.9	16.5	15.0	14.8
France	19.5	19.3	18.2	16.5	14.6

(a) Number of births per 1,000 of mean population. (b) White population only. (c) Not available. (d) 1911-13. (e) 1915. (f) 1922-25. (g) 1933-35. (h) 1938.

5. **Fertility-rates.**—The principal demographic factors affecting the level of crude birth-rates are the proportion of women of child-bearing age in the population and the proportion of such women who are married. These factors may vary considerably at different periods and for different countries, and a population with a high percentage of married women of child-bearing age will have a much higher crude birth-rate than one with a low percentage, although the fertilities of the two populations may be identical.

In order to overcome this difficulty births are sometimes related to the number of women of child-bearing age or, alternatively, nuptial births are related to the number of married women of child-bearing age. Thus births are related to potential mothers, giving the fertility-rate.

The following table sets out for certain periods commencing with 1880-82 the number of births per thousand of mean population, the number of births per thousand women of child-bearing age and the number of nuptial births per thousand married women of child-bearing age. For purposes of this table the child-bearing age has been taken to be 15-44 years inclusive, and births to mothers who were stated to be over 44 years have been included in the compilations

CRUDE BIRTH-RATES AND FERTILITY-RATES : AUSTRALIA.

Period.	Rates.			Index Nos. (Base : 1880-82 = 100).		
	Fertility-rates.			Fertility-rates.		
	Crude Birth-rate. (a)	Births per 1,000 Women aged 15-44 Years.	Nuptial Births per 1,000 Married Women aged 15-44 Years.	Crude Birth-rate. (a)	Births per 1,000 Women aged 15-44 Years.	Nuptial Births per 1,000 Married Women aged 15-44 Years.
1880-82 ..	35.3	170	321	100	100	100
1890-92 ..	34.5	159	332	98	94	103
1900-02 ..	27.2	117	235	77	69	73
1910-12 ..	27.2	117	236	77	69	74
1920-22 ..	25.0	107	197	71	63	61
1932-34 ..	16.7	71	131	49	42	41
1941-43 ..	19.6	84	141	56	49	44

(a) Number of births per 1,000 of mean population.

The table above shows how increasing proportions both of women of child-bearing age and of married women of child-bearing age inflate the crude birth-rate. Thus while the nuptial birth-rate for married women increased by only 8 per cent. over the period 1932-34 to 1941-43 the crude birth-rate rose by 17 per cent. due principally to the greatly increased number of marriages during that period.

6. **Specific Fertility-rates.**—So long as customary ages at marriage do not change drastically, the main demographic factor affecting the number of births is the age composition of the potential mothers in the population. Within the child-bearing group the fertility of women of different ages varies considerably and a clearer view of the fertility of the population can be obtained from an examination of what are known as its specific fertility-rates, that is, the number of births to women of specified ages per thousand women of those particular ages.

Specific fertility-rates are usually calculated on the basis of female births rather than total births and are frequently expressed in age-groups as well as in single ages. The table below sets out specific fertility-rates for Australia over the period 1921 to 1944 in five-yearly age-groups.

SPECIFIC FERTILITY-RATES(a) : AUSTRALIA.

Age-group (Years).	1921.	1926.	1931.	1936.	1941.	1944.
15-19 ..	12.83	14.02	13.08	12.18	11.90	11.02
20-24 ..	65.45	60.23	53.08	50.33	59.42	62.50
25-29 ..	82.24	76.82	62.47	62.02	70.78	78.25
30-34 ..	68.50	61.90	51.25	46.33	49.72	59.48
35-39 ..	49.48	43.55	33.23	28.89	28.69	35.01
40-44 ..	21.66	17.63	13.61	10.19	9.52	10.74
45-49 ..	2.10	1.90	1.45	1.11	0.80	0.88

(a) Number of female births per 1,000 women in each age-group.

The table above indicates that the most fertile age-group is 25-29 years. The decline in fertility between 1921 and 1936 was general but was more pronounced in the older age-groups. During the period 1936 to 1944 a rise in fertility occurred in all but the youngest and oldest age-groups.

7. **Gross and Net Reproduction Rates.**—A single measure of fertility known as the gross reproduction rate is obtained by adding together the specific fertility-rates for each single age in the child-bearing group. This measure indicates the number of female children who would be born on the average to women living right through the child-bearing period, if the fertility conditions on which the rate is based continue. The rate is unaffected by the age composition of the potential mothers of the population and is to be preferred to the crude birth-rate for measuring and making comparisons of fertility.

The gross reproduction rate measures fertility, but, because it does not take mortality into account, it does not measure the rate at which the population is replacing or reproducing itself. A measure of this nature is obtained by multiplying the specific fertility-rates by the numbers of females of child-bearing age in the stationary or life table population and summing the products. Allowance is thus made for the effect of mortality and the result is known as the net reproduction rate. The net reproduction rate for a specified period indicates the average number of female children who would ultimately be born to newly-born girls of the period, if the fertility and mortality conditions remain unchanged. It represents the rate at which women replace themselves in the population, i.e., the rate at which the population will multiply itself each generation if the current conditions of fertility and mortality continue. A net reproduction rate of unity for a period indicates that the population will ultimately become stationary if the fertility and mortality of the period remain unchanged. If it is greater than unity, the population will ultimately increase, if less than unity, it will ultimately decrease.

The following table gives the gross and net reproduction rates for Australia from 1881 to 1944.

GROSS AND NET REPRODUCTION RATES : AUSTRALIA.

Year.	Gross Repro- duction Rate.	Net Repro- duction Rate.	Year.	Gross Repro- duction Rate.	Net Repro- duction Rate.
1881 (a) ..	2.65	(b) 1.88	1936 ..	1.060	0.967
1891 (a) ..	2.30	(b) 1.73	1937 ..	1.075	0.981
1901 (a) ..	1.74	(c) 1.39	1938 ..	1.069	0.976
1911 ..	1.705	(d) 1.421	1939 ..	1.080	0.986
1921 ..	1.511	(e) 1.313	1940 ..	1.100	1.004
1932 ..	1.061	(f) 0.967	1941 ..	1.154	1.053
1933 ..	1.052	0.959	1942 ..	1.156	1.056
1934 ..	1.030	0.939	1943 ..	1.257	1.148
1935 ..	1.032	0.941	1944 ..	1.289	1.176

(a) Approximate only. (b) 1881-1890 mortality experience used. (c) 1891-1900 mortality experience used. (d) 1901-1910 mortality experience used. (e) 1920-1922 mortality experience used. (f) 1932-1934 mortality experience used for 1932 and subsequent years. In so far as mortality has decreased since then, the net reproduction rates tend to underestimate the true position.

Since 1881 there has been a substantial downward trend in both rates, but the gross rate has fallen considerably more than the net, showing that the decline in fertility has been offset to some extent by a decline in mortality. The net reproduction rate was below unity over the period 1932 to 1939, and if the low fertility of those years were to continue, ultimate population decline would be certain. However, the rate has increased considerably over the war years owing principally to the war-time marriage boom, but the increase may well prove only temporary. The main flaw in these rates is that fluctuations in the marriage-rate affect them quite substantially, but sufficient data is lacking to completely eliminate the effects of fluctuations in marriages. However, consideration is given below to the fertility of marriages.

8. **Gross and Net Reproduction Rates of Various Countries.**—In the following table a comparison is given of the gross and net reproduction rates recorded for various countries. It will be observed that Australia occupies a relatively low position in the scale.

GROSS AND NET REPRODUCTION RATES : VARIOUS COUNTRIES.

Country.	Period.	Reproduction Rate.		Country.	Period.	Reproduction Rate.	
		Gross.	Net.			Gross.	Net.
Japan ..	1937	2.14	1.44	United States of America (b) ..	1938	1.09	1.00
Spain ..	1930-31	1.73	1.22	Australia ..	1939	1.08	0.99
Bulgaria ..	1933-36	1.67	1.19	Germany ..	1936	1.06	0.93
Portugal ..	1939	1.66	(a)	Scotland ..	1939	1.05	0.92
Union of South Africa (b) ..	1939	1.50	1.35	Denmark ..	1939	1.04	0.92
Poland ..	1934	1.50	1.11	France ..	1938	1.04	0.91
Eire ..	1935-37	1.48	1.22	Belgium ..	1939	1.03	0.86
Italy ..	1935-37	1.43	1.13	Estonia ..	1938	0.98	0.79
Canada ..	1939	1.32	(a)	Norway ..	1939	0.93	0.86
Netherlands ..	1939	1.29	1.17	Sweden ..	1939	0.91	0.83
Hungary ..	1938	1.21	1.00	England and Wales ..	1939	0.89	0.81
Czechoslovakia ..	1929-32	1.20	0.94	Switzerland ..	1939	0.88	0.79
Latvia ..	1939	1.18	0.99	Austria ..	1933	0.80	0.67
Finland ..	1938	1.18	0.96				
New Zealand ..	1939	1.15	1.07				

(a) Not available.

(b) White population only.

9. **Fertility of Marriages.**—In previous issues of the Official Year Book estimates of the fertility of marriages were published. These were calculated by relating the births of one five-yearly period to the marriages in the preceding five years (see Official Year Book No. 35, p. 329). Since the publication of the last issue, an improved method has been formulated for measuring current marriage fertility by relating the births in each year to the marriages which could have produced these births. Births to persons of a certain number of years duration of marriage are related to the number of marriages taking place that number of years previously. The table below sets out this index of current marriage fertility for the years 1933 to 1944.

FERTILITY OF MARRIAGES : AUSTRALIA.

Year.	Number of Children per Marriage.	Year.	Number of Children per Marriage.	Year.	Number of Children per Marriage.
1933.. ..	2.36	1937 ..	2.27	1941 ..	2.19
1934.. ..	2.30	1938 ..	2.22	1942 ..	2.12
1935.. ..	2.27	1939 ..	2.20	1943 ..	2.21
1936.. ..	2.28	1940 ..	2.18	1944 ..	2.28

The figure for a particular year gives the estimated number of children which a marriage would produce according to the fertility conditions of that year. It will be noted that there was a continuous decline down to 1942 and slight increases in 1943 and 1944. Comparing this index with the net reproduction rate it is evident that the rise in the latter since 1935 has been caused by an increasing number of marriages, due firstly to the postponed depression marriages, and secondly to war-time marriages, and only in the last two years to any increase in the fertility of marriages.

10. **Masculinity of Live Births.**—(i) *General.* The masculinity of live births, i.e., the number of males born for every 100 female births, has remained fairly stable for Australia at about 105. But when the number of births for which masculinity is being calculated is small (for example State totals), considerable variation is shown. For 1944 the figures ranged from 97.78 in Northern Territory to 107.75 in Tasmania. The averages for the last intercensal period 1921–33 were as follows:—New South Wales, 105.33, Victoria, 106.19, Queensland, 105.34, South Australia, 105.08, Western Australia, 105.66, Tasmania, 105.59, Australia, 105.57. The following table shows the figures for Australia at intervals since 1901:—

MASCUINITY(a) OF LIVE BIRTHS REGISTERED : AUSTRALIA.

Particulars.	1901.	1911.	1921.	1931.	1941.	1942.	1943.	1944.
Total Births ..	104.11	104.73	105.86	106.15	105.18	105.63	104.68	104.45
Ex-nuptial Births ..	105.50	103.10	106.09	102.60	103.59	105.61	107.30	106.86

(a) Number of males born for every 100 female births.

(ii) *Masculinity of Nuptial and Ex-nuptial Births—Various Countries.* A table showing the masculinity of nuptial and ex-nuptial births for various countries appears on p. 942 of Official Year Book No. 22.

11. **Ex-nuptial Live Births.**—(i) *General.* The number of ex-nuptial live births reached its maximum, 7,438, in 1913, but it has since fallen considerably. The average number of ex-nuptial live births in Australia during the five years 1910–14 was 7,171, and for the period 1940–44 it was only 5,727, a decline of 20.1 per cent., whereas the annual average total live births for the same period increased by 0.8 per cent., from 129,156 to 140,044; hence a comparison between the results for these two periods shows that the proportion of ex-nuptial births has fallen from 5.55 to 4.09 per cent. of all births.

The variations of the ex-nuptial birth-rates as between the individual States and Territories for 1944 are shown below. Corresponding figures for 1942 and 1943 may be obtained from *Demography Bulletin* Nos. 60 and 61.

EX-NUPTIAL LIVE BIRTHS AND BIRTH-RATES, 1944.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Number..	2,554	1,541	1,744	393	448	214	6	5	6,905
Percentage of Total Births	4.28	3.92	7.11	2.95	4.12	4.12	6.74	1.30	4.50

The numbers of births and the rates at intervals from 1901 to 1944 are as follows:—

EX-NUPTIAL LIVE BIRTHS AND BIRTH-RATES : AUSTRALIA.

Particulars.	1901.	1911.	1921.	1931.	1941.	1942.	1943.	1944.
Number of Ex-nuptial Births ..	6,165	7,074	6,463	5,841	5,167	5,282	6,505	6,905
Percentage of Total Births ..	5.99	5.79	4.75	4.93	3.84	3.86	4.36	4.50

It is, of course, possible that the number of ex-nuptial births is somewhat understated owing to diffidence in proclaiming the fact of ex-nuptiality, and it is not unlikely that the majority of unregistered births are ex-nuptial.

(ii) *Rate of Ex-nuptiality.* A further comparison is obtained by calculating the number of ex-nuptial births per thousand of the single and widowed female population between the ages of 15 and 45 years. The number of ex-nuptial births per 1,000 unmarried women of ages 15 to 45 has been found to be as follows:—1880-82, 14.49; 1890-92, 15.93; 1900-02, 13.30; 1910-12, 12.53; and 1920-22, 10.50. The estimated number for the years 1930-32 was 7.87. The comparative results for various countries given on p. 944 of Official Year Book No. 22 were taken from the *Annuaire International de Statistique*, Vols. II. and V., and showed that ex-nuptial births varied from 38 per 1,000 unmarried women aged 15 to 49 years in Hungary (1906-15) to 4 in Ireland (1909-12) and Bulgaria (1910-11). The rate for Australia was 12 per thousand for the years 1906-15.

(iii) *Comparison of Rates.* The following table, showing the relative proportions of ex-nuptial and nuptial births to the total population, discloses a much greater proportional reduction in the ex-nuptial birth-rate than in the nuptial rate:—

CRUDE EX-NUPTIAL, NUPTIAL, AND TOTAL BIRTH-RATES(a) : AUSTRALIA.

Birth-rate.	1901.	1911.	1921.	1931.	1941.	1942.	1943.	1944.
Ex-nuptial ..	1.63	1.57	1.18	0.90	0.73	0.73	0.90	0.95
Nuptial ..	25.53	25.63	23.77	17.26	18.21	18.33	19.75	20.04
Total ..	27.16	27.20	24.95	18.16	18.94	19.06	20.65	20.99

(a) Number of births per 1,000 of mean population.

12. *Legitimations.*—In the several States Acts have been passed to legitimize children born before the marriage of their parents, provided that no legal impediment to the marriage existed at the time of birth. On registration in accordance with the provisions of the Legitimation Acts, any child who comes within the scope of their purposes, born before or after the passing thereof, is deemed to be legitimate from birth by the post-natal union of its parents, and entitled to the status of offspring born in wedlock. During 1942, 1943 and 1944 the number of children legitimized in Australia was 1,160, 1,157 and 1,080 respectively, compared with 883 in 1939.

13. *Multiple Births.*—Among the total number of 153,344 live births registered in Australia in 1944, there were 149,828 single births, 3,465 twins and 51 triplets. The number of cases of twins was 1,778 and of triplets 18, there being 91 still-born twins and 3 still-born triplets. The total number of mothers was, therefore, 151,624, the proportion of mothers of twins being one in every 85, of mothers of triplets one in every 8,424, and of mothers of all multiple births one in every 84 mothers. Multiple births occurred in 1.18 per cent. of confinements.

The proportion of multiple births to total births does not vary greatly from year to year and exhibits no tendency towards increase or decrease:—

MULTIPLE BIRTHS : AUSTRALIA.

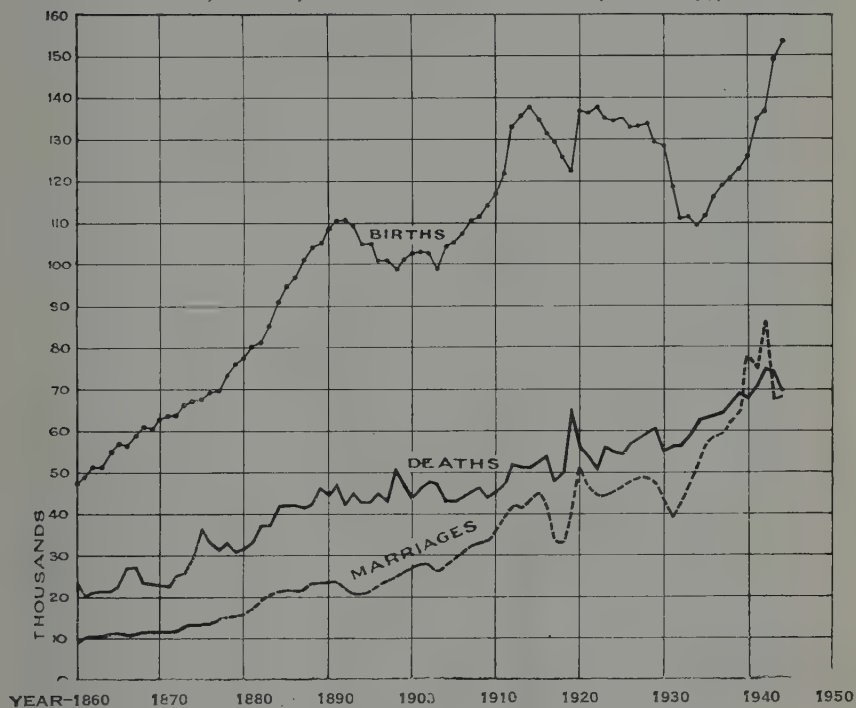
Particulars.	1911.	1921.	1931.	1941.	1942.	1943.	1944.
Mothers of Multiple Births ..	1,236	1,465	1,271	1,449	1,480	1,627	1,796
Percentage on Total Mothers ..	1.02	1.09	1.08	1.09	1.09	1.10	1.18
Proportion of Total Mothers to each Mother of Multiple Births ..	98	92	92	92	91	91	84

14. Age of Parents.—The relative ages of the parents of children registered in 1942, 1943 and 1944 have been tabulated separately for male and female births, multiple births being distinguished from single births. For total births and for multiple births the relative single ages of parents are shown in *Demography Bulletin* Nos. 60-62. In the present work the exigencies of space allow only the insertion of a table for 1944 showing the relative ages of parents in respect of all confinements in groups of five years :—

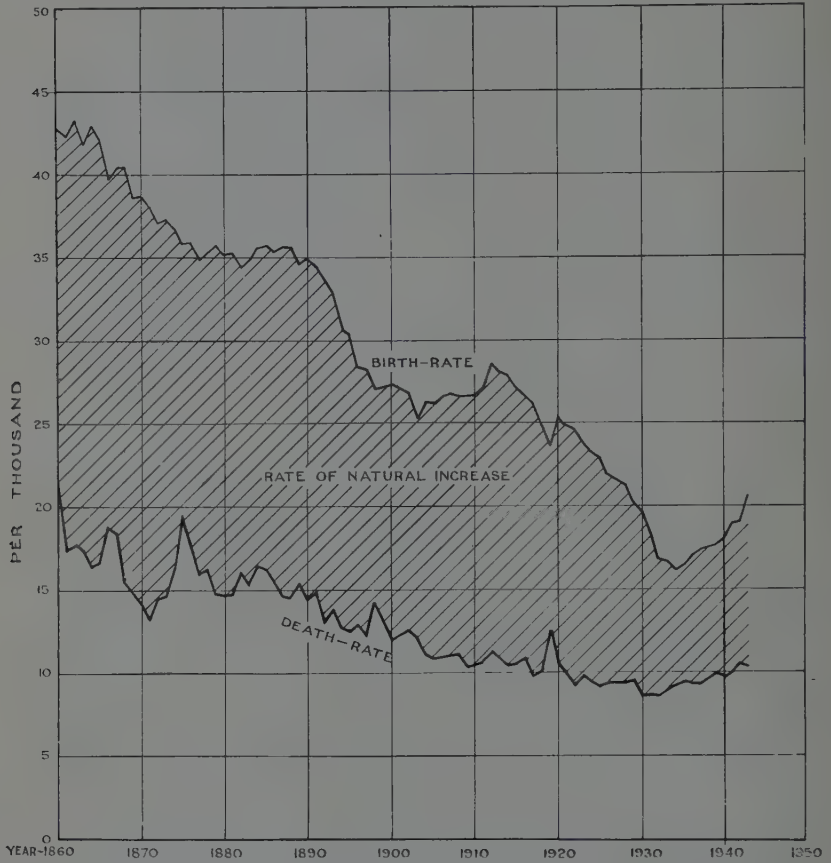
ALL CONFINEMENTS : RELATIVE AGE OF PARENTS, AUSTRALIA, 1944.

Age of Father (Years), and Type of Birth.	Total.	Age of Mother (Years).								
		Under 15.	15-19.	20-24.	25-29.	30-34.	35-39.	40-44.	45 and over.	Not Stated.
Under 20 { Single Twins	866 2	.. ..	625 ..	228 2	12 ..	1..	....	....	....	....
20-24 .. { Single Twins	17,556 157	1 ..	2,958 21	12,481 107	1,936 26	152 2	27 1	1..	....	....
25-29 .. { Single Twins Triplets	38,700 390 2	.. .. ..	1,253 5 ..	16,285 149 1	17,850 193 1	3,025 38 ..	263 5 ..	22	2....	......
30-34 .. { Single Twins Triplets	38,557 472 4	.. .. ..	314 3 ..	5,478 43 ..	16,650 191 2	14,057 205 2	1,922 30 ..	131	5....	......
35-39 .. { Single Twins Triplets	26,662 370 8	.. .. ..	91 1 ..	1,458 16 ..	5,911 66 ..	11,119 157 6	7,377 119 2	695 11 ..	11....	......
40-44 .. { Single Twins Triplets	13,394 211 3	.. .. ..	33	447 5 ..	1,605 17 ..	3,879 64 2	5,284 96 ..	2,082 29 1	64....	......
45-49 .. { Single Twins	4,754 70	.. ..	13 ..	111 1	416 9	1,049 19	1,807 26	1,216 14	142 1	....
50-54 .. { Single Twins Triplets	1,745 24 1	.. .. ..	4	47 1 ..	129 2 ..	363 7 ..	600 7 1	515 7 ..	87....	......
55-59 .. { Single Twins	559 15	.. ..	1 ..	13 ..	49 ..	123 3	180 4	173 6	20..	....
60-64 .. { Single Twins	186 4	.. ..	.. ..	6 ..	19 ..	52 ..	60 2	43 2	6..	....
65 and over { Single Twins	63 1	.. ..	.. ..	1 ..	7 1	14 ..	25 ..	15 ..	1..	....
Not stated Single	5	..	..	1	1	1	2	..	..	..
Mothers of Nuptial Children { Single Twins Triplets Total	143,047 1,714 18 144,779	1 1	5,292 30 .. 5,322	36,556 324 1 36,881	44,585 505 3 45,093	33,835 495 10 34,340	17,547 290 3 17,840	4,893 69 1 4,963	338 1 .. 339	........
Mothers of Ex-nuptial Children { Single Twins Total	6,781 64 6,845	29 1 30	1,636 4 1,640	2,475 17 2,492	1,271 10 1,281	757 20 777	451 11 462	144 1 145	15 .. 15	3 .. 3
Total Mothers { Single Twins Triplets Total	149,828 1,778 18 151,624	30 1 .. 31	6,928 34 .. 6,962	39,031 341 1 39,373	45,856 515 3 46,374	34,592 515 10 35,117	17,998 301 3 18,302	5,037 70 1 5,108	353 1 .. 354	3 3

BIRTHS, DEATHS, AND MARRIAGES—AUSTRALIA, 1860 TO 1944.

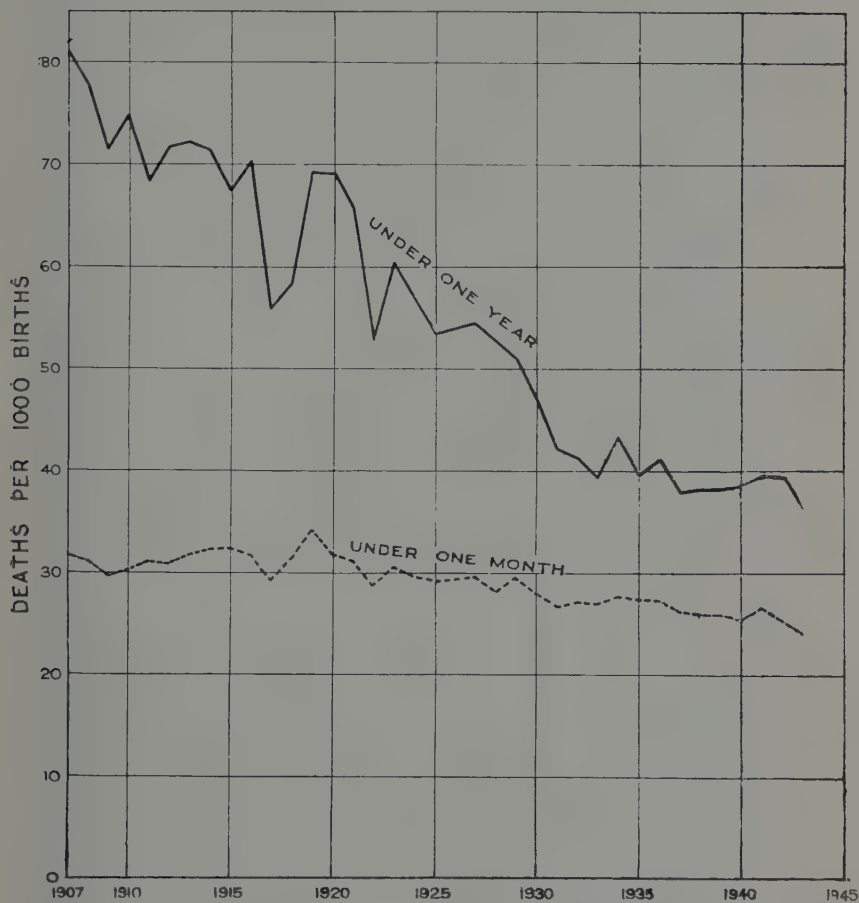


RATES OF BIRTHS, DEATHS, AND NATURAL INCREASE--AUSTRALIA, 1860 TO 1943.



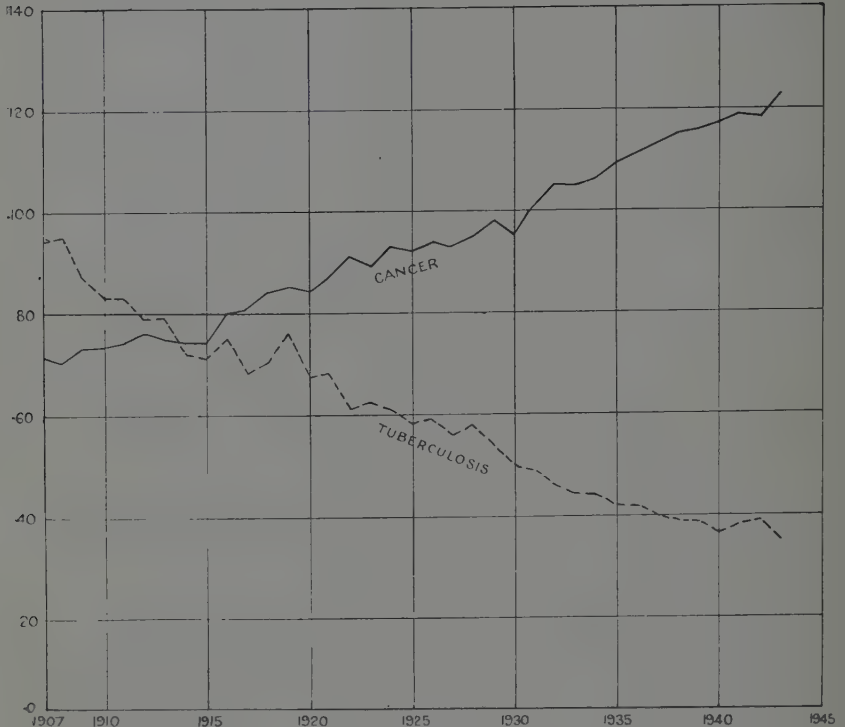
EXPLANATION.—The upper curve represents the number of births per 1,000 persons, while the lower curve represents the corresponding death-rate. The distance between the two curves is the rate of natural increase.

INFANTILE MORTALITY RATES—AUSTRALIA 1907 TO 1943.



EXPLANATION.—This graph shows the marked improvement in infantile mortality rates over the past 36 years. The improvement has been confined mainly to children over one month, very little change having occurred in the first month of life (see page 540).

DEATH-RATES—CANCER AND TUBERCULOSIS—AUSTRALIA, 1907 TO 1943.



(See page 564.)

EXPLANATION.—The vertical scale represents the number of deaths per 100,000 of the population.

15. **Birthplace of Parents.**—A table showing birthplace of parents of children whose births were registered during 1940 appears in *Demography Bulletin* No. 58. Tabulation for subsequent years was discontinued but will be revived for 1945.

16. **Occupation of Fathers.**—A summary of the main groups of occupations of the fathers of all nuptial children registered in 1921, 1931 and 1941 to 1944, together with the percentage of each group on the total, is given in the following table :—

NUPTIAL CONFINEMENTS : OCCUPATION OF FATHERS OF NUPTIAL CHILDREN,
AUSTRALIA.

Occupation Group.	1921.	1931.	1941.	1942.	1943.	1944.
NUMBER OF FATHERS.						
Agricultural, Pastoral, Mining, etc.	32,405	24,760	23,709	23,638	24,592	27,154
Industrial	53,567	49,902	30,388	34,304	38,631	36,682
Transport and Communication	15,351	12,302	11,065	10,972	11,863	12,483
Commercial	18,298	16,030	13,284	11,143	9,974	10,139
Professional	6,204	5,991	20,228	22,212	23,282	23,650
Personal Service	2,319	2,146	2,403	1,875	1,706	1,745
Indefinite	182	349	626,950	619,901	617,243	617,926
Total	128,326	111,480	128,027	130,045	141,291	144,779

PERCENTAGE OF TOTAL.

	%	%	%	%	%	%
Agricultural, Pastoral, Mining, etc.	25.25	22.21	18.52	18.18	17.40	18.70
Industrial	41.74	44.76	23.73	26.38	27.34	25.34
Transport and Communication	11.96	11.04	8.64	8.44	8.40	8.62
Commercial	14.26	14.38	10.38	8.57	7.06	7.00
Professional	4.84	5.37	15.80	16.69	16.39	16.70
Personal Service	1.81	1.93	1.88	1.44	1.21	1.20
Indefinite	0.14	0.31	621.05	615.30	612.20	612.38
Total	100.00	100.00	100.00	100.00	100.00	100.00

(a) Includes clerks, etc., not specified as belonging to any industry, formerly included under "Commercial", and defence personnel. (b) Includes labourers not specified as belonging to any industry, formerly included under "Industrial".

17. **Age, Duration of Marriage and Issue of Mothers.**—(i) *General.* The total number of nuptial confinements resulting in live births in 1944 was 144,779, comprising 143,047 single births, 1,714 cases of twins and 18 cases of triplets. Details of age, duration of marriage and previous issue were not stated in respect of seven mothers and they are excluded from the following tables. The tables also exclude the previous issue of former marriages and still-born children. On the other hand, they include children by the same father which were born to the mother prior to the marriage.

The tables are shown in summarized form, more complete details being given in *Demography Bulletin* No. 62.

(ii) *Duration of Marriage and Issue of Mothers.* The following table shows that the duration of marriage of mothers of nuptial children ranged from less than one year up to 32 years, and that the average family increased fairly regularly with the duration of marriage. The average issue of married mothers who bore children in 1944 was 2.41 compared with 2.34 in 1943, 2.38 in 1942, 2.39 in 1941 and 2.44 in 1940.

NUPTIAL CONFINEMENTS : DURATION OF MARRIAGE AND ISSUE OF MOTHERS, AUSTRALIA, 1944.

Duration of Marriage. (Years.)	Total Married Mothers.	Total Issue.	Average Issue.	Duration of Marriage. (Years.)	Total Married Mothers.	Total Issue.	Average Issue.
0-1 ..	16,803	16,930	1.01	18-19 ..	984	6,061	6.16
1-2 ..	18,453	20,744	1.12	19-20 ..	734	4,797	6.54
2-3 ..	17,530	26,535	1.51	20-21 ..	584	4,113	7.04
3-4 ..	15,136	27,942	1.85	21-22 ..	448	3,263	7.28
4-5 ..	13,432	28,827	2.15	22-23 ..	332	2,536	7.64
5-6 ..	10,760	26,303	2.44	23-24 ..	210	1,584	7.54
6-7 ..	9,102	24,429	2.68	24-25 ..	123	1,077	8.76
7-8 ..	7,980	23,351	2.93	25-26 ..	88	814	9.25
8-9 ..	6,633	21,231	3.20	26-27 ..	43	397	9.23
9-10 ..	5,473	18,870	3.45	27-28 ..	25	260	10.40
10-11 ..	4,283	15,774	3.68	28-29 ..	16	155	9.69
11-12 ..	3,479	13,792	3.96	29-30 ..	12	120	10.00
12-13 ..	2,813	12,125	4.31	30-31 ..	2	17	8.50
13-14 ..	2,398	11,026	4.60	31-32 ..	1	15	15.00
14-15 ..	2,207	10,607	4.81				
15-16 ..	1,861	9,529	5.12				
16-17 ..	1,566	8,362	5.34				
17-18 ..	1,261	7,261	5.76				
				Total ..	21,447,772	348,847	2.41

(a) Excludes seven mothers, details of whose duration of marriage and previous issue were not stated.

(iii) *Age and Average Issue of Mothers.* The following table shows the average number of children born to mothers of different ages. In the younger ages there is, naturally, little difference in the average number of children to each mother, but with the increase of the age of the mother the number of issue has fallen in comparison with past years. During the period 1911 to 1944 the average issue of mothers of all ages has fallen by 27.84 per cent.—from 3.34 in 1911 to 2.41 in 1944 :—

AGE AND AVERAGE ISSUE OF MOTHERS : AUSTRALIA.

Age of Mother (Years).	Average Issue.					Age of Mother (Years).	Average Issue.				
	1911.	1921.	1931.	1941.	1944.		1911.	1921.	1931.	1941.	1944.
Under 20 ..	1.18	1.16	1.21	1.19	1.17	40-44 ..	6.97	6.27	6.00	5.34	4.87
20-24 ..	1.77	1.64	1.74	1.58	1.55	45 and over ..	8.52	8.04	7.48	7.01	6.18
25-29 ..	2.64	2.44	2.46	2.10	2.14						
30-34 ..	3.82	3.57	3.44	2.85	2.82						
35-39 ..	5.28	4.95	4.71	3.90	3.67	All Ages	3.34	3.08	2.95	2.39	2.41

(iv) *Previous Issue of Mothers, Various Ages.* A classification of mothers of various ages according to previous issue is given in the following table :—

NUPTIAL CONFINEMENTS: MOTHERS OF VARIOUS AGES ACCORDING TO PREVIOUS ISSUE, AUSTRALIA, 1944.

Previous Issue.	Age of Mothers (Years.)							Total Married Mothers.
	Under 20	20-24	25-29	30-34	35-39	40-44	45 and Over.	
0	4,501	22,362	16,051	7,217	2,497	554	33	53,215
1	750	10,171	15,810	10,585	3,913	605	23	41,857
2	68	3,175	7,580	7,645	3,797	769	29	23,063
3	4	918	3,345	4,037	2,663	742	36	11,745
4	..	206	1,421	2,190	1,716	578	39	6,150
5	..	39	553	1,269	1,151	437	41	3,490
6	..	9	245	732	788	350	30	2,154
7	..	..	65	363	527	262	25	1,242
8	..	..	15	161	364	214	18	772
9	..	..	6	92	202	168	16	484
10	..	..	..	33	109	109	16	267
11	..	..	..	10	60	75	10	155
12	..	..	..	2	28	41	12	83
13	..	..	..	3	11	34	7	55
14	..	..	..	..	3	20	2	30
15	..	..	..	1	2	4	2	9
16	..	..	..	..	..	1	..	1
Total Married Mothers	5,323	36,880	45,091	34,340	17,836	4,963	339	144,772

(a) Excludes 7 mothers, details of whose age and previous issue were not stated.

(v) *Previous Issue of Mothers of Twins and Triplets.* Figures regarding the previous issue of married mothers of twins show that 515 mothers had no previous issue either living or deceased, 489 had one child previously, 309 had two previous issue, 147 three, 98 four, 60 five, 34 six, 21 seven, 20 eight, 12 nine, 6 ten, 2 eleven and 1 twelve previous issue.

Of the 18 cases of triplets registered during 1944, 3 mothers had no previous issue, 5 had one, 7 had two, 1 had four, 1 had five and 1 had seven previous issue.

18. Interval Between Marriage and First Birth.—(i) *Interval.* The following table shows the interval between marriage and first birth for 1911, 1921, 1931, 1941, 1942, 1943 and 1944. Twins and triplets are included, the eldest only being enumerated.

INTERVAL BETWEEN MARRIAGE AND FIRST BIRTH : AUSTRALIA.

Interval.	1911.	1921.	1931.	1941.	1942.	1943.	1944.
NUMBER OF FIRST BIRTHS.							
Under 1 month ..	562	437	395	240	227	225	186
1 month ..	608	538	523	333	276	260	261
2 months ..	817	735	750	400	380	418	345
3 " ..	1,125	1,017	1,135	714	620	576	487
4 " ..	1,299	1,336	1,409	1,094	1,000	877	734
5 " ..	1,651	1,781	1,968	1,725	1,525	1,218	1,237
6 " ..	2,089	2,420	2,517	2,604	2,410	1,911	1,753
7 " ..	1,602	2,231	2,022	2,201	2,166	1,813	1,563
8 " ..	1,529	1,950	1,139	1,774	1,873	2,029	1,816
9 " ..	3,361	4,222	2,272	3,627	3,680	3,891	3,608
10 " ..	2,623	3,630	1,859	3,132	3,144	3,448	2,507
11 " ..	1,893	2,645	1,636	2,762	2,641	2,994	2,188
Total under 1 year	19,159	22,942	17,625	20,696	19,942	19,660	16,685
1-2 years ..	7,400	11,149	8,888	16,348	16,620	19,737	16,227
2-3 " ..	2,101	2,923	3,441	6,441	7,300	8,343	9,094
3-4 " ..	908	1,413	1,823	3,453	3,400	4,468	4,586
4-5 " ..	471	837	967	1,984	2,000	2,014	2,586
5-9 " ..	762	1,473	1,424	2,533	2,775	3,087	3,496
10-14 " ..	159	223	262	337	336	406	443
15-19 " ..	31	54	50	47	86	75	85
20 years and over..	9	4	6	12	14	12	13
Total ..	31,000	41,018	34,486	51,851	52,473	57,802	a 53,215

(a) Excludes 1 birth, duration of marriage not stated.

PERCENTAGE OF TOTAL FIRST BIRTHS.

	%	%	%	%	%	%	%
Under 1 month ..	1.81	1.07	1.15	0.46	0.43	0.39	0.35
1 month ..	1.96	1.31	1.52	0.64	0.53	0.45	0.49
2 months ..	2.63	1.79	2.17	0.94	0.72	0.72	0.65
3 " ..	3.63	2.48	3.29	1.38	1.18	1.00	0.92
4 " ..	4.19	3.26	4.09	2.11	1.91	1.52	1.38
5 " ..	5.33	4.34	5.71	3.33	2.92	2.11	2.32
6 " ..	6.74	5.90	7.30	5.02	4.59	3.30	3.20
7 " ..	5.17	5.44	5.86	4.24	4.13	3.14	2.94
8 " ..	4.93	4.75	3.30	3.42	3.57	3.51	3.41
9 " ..	10.84	10.29	6.59	7.00	7.01	6.73	6.78
10 " ..	8.46	8.85	5.30	6.04	5.99	5.96	4.71
11 " ..	6.11	6.45	4.74	5.33	5.03	5.18	4.11
Total under 1 year	61.80	55.93	51.11	39.91	38.01	34.01	31.35
1-2 years ..	23.87	27.18	25.77	31.53	31.67	34.15	30.49
2-3 " ..	6.78	7.13	9.98	12.42	13.91	14.43	17.09
3-4 " ..	2.93	3.45	5.29	6.66	6.48	7.73	8.62
4-5 " ..	1.52	2.04	2.80	3.83	3.81	3.49	4.86
5-9 " ..	2.46	3.59	4.13	4.89	5.29	5.34	6.57
10-14 " ..	0.51	0.54	0.76	0.65	0.64	0.70	0.83
15-19 " ..	0.10	0.13	0.14	0.09	0.16	0.13	0.16
20 years and over ..	0.03	0.01	0.02	0.02	0.03	0.02	0.03
Total ..	100.00	100.00	100.00	100.00	100.00	100.00	100.00

The masculinity of first births in 1944 was 104.48 compared with 104.45 for total births.

(ii) *Age of Mother and Interval.* Previous issue of mothers of ex-nuptial children is not recorded and for purposes of the following table all ex-nuptial births are regarded as first births. The table shows in condensed form for 1942, 1943 and 1944 the numbers of births of ex-nuptial children, of children born less than nine months after marriage and of all first-born children according to the age of mothers. Over the past few years about one-quarter of all first births were either ex-nuptial or occurred less than nine months after marriage. Of the first-born children of mothers under 20 years, however, over two thirds came into this category. The percentage diminishes rapidly to about 14 per cent. for mothers aged 25 to 34 years and then rises perceptibly for mothers in older age-groups.

It must be remembered, of course, that a certain number of premature births is unavoidably included among the births which took place less than nine months after marriage, and they are not necessarily due to ante-nuptial conception. However, information in connexion therewith is not available and the figures in the table must be accepted with this reservation. Tabulations showing single ages of mothers of nuptial first-born children and interval after marriage are given for 1942, 1943 and 1944 in *Demography Bulletin* Nos. 60-62 respectively.

AGE OF MOTHER AND INTERVAL BETWEEN MARRIAGE AND FIRST BIRTH : AUSTRALIA.

Age of Mother at Birth of First Child (Years).

Particulars.	Under 20.	20-24.	25-29.	30-34.	35-39.	40-44.	45 and over.	Total.
1942—								
Ex-nuptial births (a) No.	1,359	1,810	977	603	329	139	16	(b) 5,233
Nuptial births occurring less than 9 months after marriage .. No.	3,165	5,068	1,513	523	172	33	3	10,477
Total .. No.	4,524	6,878	2,490	1,126	501	172	19	15,710
Total first births No.	6,481	23,080	17,978	7,178	2,383	564	41	657,705
1943—								
Ex-nuptial births (a) No.	1,673	2,335	1,187	667	401	166	21	6,450
Nuptial births occurring less than 9 months after marriage .. No.	2,740	4,419	1,425	496	199	45	3	9,327
Total .. No.	4,413	6,754	2,612	1,163	600	211	24	15,777
Total first births No.	6,584	26,553	19,446	8,125	2,813	688	43	64,252
1944—								
Ex-nuptial births (a) No.	1,670	2,492	1,281	777	462	145	15	(d) 6,842
Nuptial births occurring less than 9 months after marriage .. No.	2,582	4,066	1,106	418	162	43	5	8,382
Total .. No.	4,252	6,558	2,387	1,195	624	188	20	15,224
Total first births No.	6,171	24,854	17,332	7,994	2,960	699	48	60,058
Percentage of (i) ex-nuptial births plus (ii) nuptial births occurring less than 9 months after marriage on (iii) total first births—								
1911 .. %	83.12	53.91	32.50	28.06	32.64	36.56	60.47	48.14
1921 .. %	79.23	45.82	25.60	23.05	29.43	35.31	54.84	39.74
1931 .. %	82.60	48.43	21.89	22.20	30.86	38.95	48.89	43.80
1941 .. %	73.01	32.31	14.50	14.50	21.21	32.53	60.98	28.59
1942 .. %	69.80	29.80	13.85	15.69	21.02	30.50	46.34	27.22
1943 .. %	67.03	25.44	13.43	14.31	21.33	30.67	55.81	24.55
1944 .. %	68.90	26.39	13.77	14.95	21.09	26.90	41.67	25.35

(a) For purposes of this table all ex-nuptial births are regarded as first births.
4 births, age of mother not stated. (c) Excludes 5 births, age of mother not stated.
3 births, age of mother not stated.

(b) Excludes
(d) Excludes

NOTE.—In cases of multiple first births, only one child is included.

19. *Interval between Birth and Registration of Birth.*—Detailed information for the years 1911 to 1921 regarding the period which elapsed between birth and registration of birth is contained in *Demography Bulletins* issued by this Bureau for those years. The average interval for 1921 was over 14 days for all children.

20. *Still-births.*—Reliable statistics of the number of children born dead in Australia are not available as registration of these births is not compulsory in all States. Based on such information as is available the estimated number of still-births in Australia during 1942, 1943 and 1944 was 3,900, 4,200 and 4,300, respectively.

§ 3. Mortality.

1. *Number of Deaths.*—(i) *Year, 1944.* The following table shows the number of deaths, male and female, registered in each State during the year :—

DEATHS, 1944.

Sex.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	N.T.	A.C.T.	Australia.
Males ..	14,494	10,644	5,445	3,168	2,664	1,335	25	45	37,820
Females..	12,158	9,858	3,940	2,816	1,814	1,159	6	25	31,776
Persons ..	26,652	20,502	9,385	5,984	4,478	2,494	31	70	69,596

(ii) *Years 1901 to 1944* A summary of the total number of deaths in each State and Territory at intervals since 1901 is given in the following table :—

DEATHS.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	N.T.	A.C.T.	Australia.
1901 ..	16,021	15,904	6,007	3,974	2,519	1,814	91	(a)	46,330
1911 ..	17,146	15,216	6,544	4,038	2,923	1,927	65	10	47,869
1921 ..	20,026	16,165	7,142	4,982	3,480	2,197	80	4	54,076
1931 ..	21,270	17,033	7,525	4,888	3,681	2,057	70	36	56,560
1939 ..	26,815	20,169	9,530	5,739	4,336	2,426	88	44	69,147
1940 ..	26,143	20,293	9,205	5,708	4,486	2,387	86	78	68,384
1941 ..	27,300	20,522	9,530	6,288	4,769	2,575	122	70	71,176
1942 ..	29,219	21,973	9,622	6,712	5,076	2,430	83	76	75,191
1943 ..	28,870	21,327	10,576	6,482	4,587	2,527	49	68	74,486
1944 ..	26,652	20,502	9,385	5,984	4,478	2,494	31	70	69,596

(a) Part of New South Wales prior to 1911.

2. **Crude Death-rates.** The commonest measure of mortality is to relate the number of deaths for a given period to the mean population for that period, thus obtaining the crude death-rate. This rate for a given period measures the numbers per thousand of population by which the population is depleted through deaths during that period. Crude death-rates for each State and Territory at intervals from 1901 to 1944 are shown in the following table :—

CRUDE DEATH-RATES.(a)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
1901 ..	11.75	13.22	11.98	11.12	13.39	10.51	19.10	(b)	12.22
1911 ..	10.31	11.52	10.65	9.81	10.19	10.14	19.63	5.61	10.66
1921 ..	9.50	10.52	9.37	10.02	10.42	10.30	20.44	1.61	9.91
1931 ..	8.32	9.47	8.14	8.49	8.51	9.15	14.12	4.09	8.67
1934 ..	8.95	10.19	8.57	9.26	9.23	10.23	12.16	(c)3.29	9.32
1935 ..	9.28	10.03	9.16	8.83	9.25	10.25	13.72	(c)4.21	9.46
1936 ..	9.14	10.16	8.78	9.30	9.40	10.33	11.42	(c)4.27	9.43
1937 ..	9.36	10.03	9.10	8.91	8.95	9.51	11.64	(c)3.85	9.44
1938 ..	9.59	10.15	9.19	9.35	9.20	9.71	12.05	5.39	9.64
1939 ..	9.76	10.72	9.40	9.62	9.31	10.19	14.67	3.64	9.93
1940 ..	9.43	10.66	8.97	9.53	9.53	9.93	13.75	5.75	9.72
1941 ..	9.78	10.60	9.19	10.44	10.07	10.74	19.44	4.76	10.02
1942 ..	10.37	11.18	9.27	10.99	10.60	10.09	16.97	5.20	10.49
1943(d) ..	10.16	10.77	10.06	10.53	9.56	10.43	9.53	4.82	10.30
1944(d)—									
Males..	10.08	10.78	9.90	10.28	10.55	10.78	6.17	6.30	10.30
Females	8.48	9.76	7.64	8.97	7.79	9.54	5.31	3.43	8.74
Persons	9.28	10.26	8.81	9.62	9.23	10.16	5.99	4.85	9.53

(a) Number of deaths per 1,000 of annual mean population. (b) Part of New South Wales prior to 1911. (c) Revised rates based on mean population adjusted in accordance with the results of Census of 30th June, 1938. See letterpress on p. 461.

3. **Standardized Death-rates.**—(i) *General.* The death-rates quoted above are crude rates, i.e., they simply show the number of deaths per thousand of mean population without taking into consideration differences in the sex and age composition of the population. Other conditions being equal, however, the crude death-rate of a community will be low if it contains a large percentage of young people (not infants), and conversely it will be relatively high if the population includes a large proportion of elderly people. The foregoing table of crude death-rates, therefore, does not indicate comparative incidence of mortality either as between States in the same year or in any one State over a period of years. In order to obtain a comparison of mortality rates on a uniform basis as far as sex and age constitution are concerned, "standardized" death-rates may be computed. These are computed by selecting a particular distribution of age and sex as a standard, and then calculating what would have been the general death-rate if the death-rates in each sex and age-group were as recorded, but the age and sex distribution the same as in the standard population. For the standardized rates which follow, the standard population compiled by the International Institute of Statistics has been used. This standard is based upon the age distribution according to sex of nineteen European countries at their Censuses nearest to the year 1900. Full details of the "Standard Population" are given in Official Year Book No. 22, p. 962.

(ii) *Death-rates in Age-groups.* The following table provides a comparison of death-rates in age-groups in each State for the latest Census year (1933) in which the ages of population in each State were accurately ascertained.

DEATH-RATES(a) IN AGE-GROUPS, 1933.

Age-group (years).	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	N.T.	A.C.T.	Aust.
Under 1 ..	41.03	43.52	45.64	34.04	38.25	43.28	75.27	43.48	41.72
1-4 ..	3.70	3.78	4.29	2.72	3.46	3.99	2.73	1.23	3.72
5-14 ..	1.08	1.21	1.24	0.96	1.31	1.67	..	0.55	1.16
15-24 ..	1.74	1.82	2.01	1.72	1.69	2.41	4.34	0.68	1.82
25-34 ..	2.50	2.76	3.10	2.65	2.99	3.47	4.30	0.63	2.74
35-44 ..	4.27	4.02	5.06	3.76	4.76	4.98	7.94	4.49	4.32
45-54 ..	8.43	8.10	8.69	7.27	10.03	8.11	9.71	6.19	8.36
55-64 ..	18.07	18.88	18.09	15.99	19.34	15.80	30.15	11.19	18.15
65 and over	64.78	62.85	66.87	61.18	60.49	65.43	77.47	40.91	63.85
Crude Death rate (all ages) ..	8.58	9.59	8.84	8.44	8.64	9.60	12.55	4.19	8.92

(a) Number of deaths per 1,000 of mean population at ages shown.

It will be observed that in this particular year, while the crude death-rates for Victoria and Tasmania were substantially higher than in other States, the rates at individual ages were lower than for Queensland and not appreciably higher than in New South Wales or Western Australia.

(iii) *Comparison of Crude and Standardized Death-rates.* The relative incidence of mortality as between individual States and as between the years 1921 and 1933 is illustrated in the following statement of crude and "standardized" death-rates. These years have been chosen for comparison because the Census data give essential information as to sexes and ages of the State population. Crude death-rates are shown to indicate the degree to which they disguise the true position.

CRUDE AND STANDARDIZED DEATH-RATES.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Aust.
Crude Death-rate(a)—							
1921	9.50	10.52	9.37	10.02	10.42	10.30	9.91
1933	8.58	9.59	8.84	8.44	8.64	9.60	8.92
Standardized Death-rate(b)—							
1921	10.35	10.79	10.24	10.38	11.88	10.83	10.58
1933	8.52	8.74	9.10	7.66	8.74	8.86	8.62

(a) Total deaths per 1,000 of mean population.
in par. 3 (i) above.

(b) See explanation of standardized death-rates

The above comparisons relate to individual years which happened to be Census years and should not be used as the bases for general conclusions as to changes in incidence of mortality for other than those years.

(iv) *Standardized Death-rates, Australia, 1933 to 1944.* It is not possible to continue the index of mortality formerly published. As indicated in letterpress previously published the index of mortality was an unsatisfactory basis for comparison. The more reliable standardized death-rates for Australia for 1933 and later years were as follows:—1933, 8.62; 1934, 8.92; 1935, 8.83; 1936, 8.70; 1937, 8.58; 1938, 8.59; 1939, 8.73; 1940, 8.51; and 1941, 8.55. As it has been impossible to obtain a satisfactory estimate of the age distribution of the population since 1941, rates for later years have not been calculated.

4. *True Death-rates.*—The main objections to standardized death-rates are that the choice of a standard population is arbitrary and that the standardized rates have little value except for comparative purposes, and even then variation of the standard population may make appreciable differences. A correct measurement of the mortality of the

population can be obtained, however, from life tables. A life table represents the number of survivors at each age from an original batch of newly-born children who are subject to given mortality conditions, and from such a table the average expectation of life at birth can be calculated. The reciprocal of this figure is known as the true death-rate, since, if the average expectation of life of a person at birth is 50 years, say, then each person will on the average die 50 years after birth, so that in the standard population one person in 50 or 20 per thousand will die each year. The true death-rate for a given period is unaffected by the particular age distribution of that period and is determined solely by the mortality experience of the period as manifested in the rate of survivorship from each year of age to the next. The table below sets out average expectation of life at birth and true death-rates for the periods covered by Australian life tables.

**AVERAGE EXPECTATION OF LIFE AT BIRTH AND TRUE DEATH-RATES:
AUSTRALIA.**

Period.	Average Expectation of Life at Birth.		True Death-rate.	
	Males.	Females.	Males.(a).	Females.(b)
	Years.	Years.		
1881-1890.. .. .	47.20	50.84	21.19	19.67
1891-1900.. .. .	51.08	54.76	19.58	18.26
1901-10	55.20	58.84	18.12	17.00
1920-22	59.15	63.31	16.91	15.80
1932-34	63.48	67.14	15.75	14.89

(a) Number of deaths per 1,000 males.

(b) Number of deaths per 1,000 females.

5. **Crude Death-rates of Various Countries.**—The following table gives the crude death-rate for Australia and each State thereof in comparison with the rates for various other countries. Later figures than 1939 are not shown as they are based on population estimates whose comparability is open to doubt because of the abnormal distribution of population during war-time.

CRUDE DEATH-RATES (a) : VARIOUS COUNTRIES.

Country.	1908-13.	1921-25.	1926-30.	1931-35.	1939.
Netherlands	13.9	10.4	9.9	8.9	8.6
New Zealand (b)	9.3	8.6	8.6	8.2	9.2
Western Australia	10.3	9.2	9.1	8.8	9.3
Queensland	10.3	9.2	8.6	8.6	9.4
Union of South Africa (b)	(c) 10.3	9.7	9.7	9.8	9.4
South Australia	10.1	9.4	8.7	8.7	9.6
Canada	(d) ..	11.2	11.1	9.7	9.6
New South Wales	10.3	9.3	9.4	8.7	9.8
Australia	10.7	9.5	9.3	9.0	9.9
Denmark	13.2	11.3	11.1	10.9	10.1
Tasmania	10.7	9.8	9.6	9.6	10.2
Norway	13.6	11.5	11.0	10.4	10.2
United States of America	(c) 14.1	11.8	11.8	(e) 10.9	10.6
Victoria	11.7	10.1	9.6	9.7	10.7
Argentina	17.5	14.4	13.3	12.1	11.2
Sweden	14.0	12.1	12.1	11.6	11.5
Switzerland	15.2	12.5	12.1	11.8	11.8
England and Wales	14.1	12.2	12.1	12.0	12.1
Great Britain and Northern Ireland	14.5	12.4	12.3	12.2	12.2
Germany	16.5	13.3	11.8	11.2	12.3
Czechoslovakia	21.0	16.1	15.3	13.8	(f) 12.8

(a) Number of deaths per 1,000 mean population.

(b) White population only.

(c) 1911-13.

(d) Not available.

(e) 1933-35.

(f) 1938.

CRUDE DEATH-RATES (a): VARIOUS COUNTRIES—continued.

Country.	1908-13.	1921-25.	1926-30.	1931-35.	1939.
Scotland	15.5	13.9	13.6	13.2	12.9
Greece	(c)	16.5	16.6	16.5	13.0
Italy	20.4	17.4	16.0	14.1	13.4
Northern Ireland	16.9	15.6	14.8	14.3	13.5
Hungary	(b) 22.9	19.9	17.0	15.8	13.7
Belgium	15.7	13.4	13.7	12.9	13.8
Poland	21.0	18.5	16.8	14.7	(e) 13.9
Eire	16.9	14.6	14.4	14.0	14.2
Finland	16.4	15.1	14.8	13.3	14.7
Yugoslavia	(c)	20.2	20.0	17.9	15.0
Portugal	(b) 20.9	20.4	18.4	16.9	15.3
France	18.6	17.2	16.8	15.7	15.5
Japan	20.5	21.8	19.3	17.9	17.6
Spain	22.8	20.2	17.9	16.4	18.5
Rumania	24.7	23.0	21.2	20.6	18.6
Ceylon	31.4	27.8	25.1	24.7	21.8
Mexico	(c)	(d) 25.5	25.6	24.8	23.0
Chile	(b) 31.0	30.3	25.8	24.4	23.3
Egypt	25.8	25.4	26.2	27.4	26.0

(a) Number of deaths per 1,000 mean population. (b) 1911-13. (c) Not available.
 (d) 1922-25. (e) 1938.

6. True Death-rates of Various Countries.—The following table gives the true death-rate for Australia in comparison with the rates for various other countries:—

TRUE DEATH-RATES: VARIOUS COUNTRIES.

Country.	Period.	True Death-rate.		Country.	Period.	True Death-rate.	
		Males. (a)	Females. (b)			Males. (a)	Females. (b)
Netherlands ..	1931-40	15.2	14.9	Belgium ..	1928-32	17.9	16.7
New Zealand(c)	1934-38	15.3	14.6	Scotland ..	1930-32	17.9	16.8
Sweden ..	1936-40	15.6	14.9	Northern Ire-			
Denmark ..	1936-40	15.8	15.2	land ..	1925-27	18.0	17.8
Australia ..	1932-34	15.8	14.9	Austria ..	1930-33	18.4	17.1
United States				Finland ..	1931-40	18.4	16.8
of America c	1930-41	15.9	14.9	France ..	1928-33	18.4	16.9
Norway ..	1930-31	16.4	15.7	Italy ..	1930-32	18.6	17.9
Switzerland ..	1933-37	16.5	15.5	Czechoslovakia	1929-32	19.3	18.1
England and				Greece ..	1928	20.4	19.7
Wales ..	1937	16.6	15.5	Hungary ..	1930-31	20.7	19.5
Germany ..	1932-34	16.7	15.9	Poland ..	1931-32	20.8	19.5
Eire ..	1940-42	17.0	16.4	Japan ..	1935-36	21.3	20.2
Canada ..	1930-32	17.0	16.5	U.S.S.R.			
Union of South				(Europe) ..	1926-27	23.9	21.4
Africa (c) ..	1935-37	17.0	15.9				

(a) Number of deaths per 1,000 males. (b) Number of deaths per 1,000 females. (c) White population only.

7. Australian Life Tables.—Official Year Book No. 20, pp. 962 and 969-73, contains a synopsis of the various Australian life tables and comparisons with other countries of the expectation of life at various ages. In connexion with the Census of 1933, life

tables have been constructed in respect of each sex for Australia as a whole, and these, together with monetary tables on single and joint lives based thereon, have been published as separate Census publications. A specially contributed article by F. W. Barford, M.A., A.I.A., on the results of the tables for single lives appears in Official Year Book, No. 29, p. 928.

8. *Infantile Deaths and Death-rates.*—(i) *Australia, 1901 to 1944.* The universal experience that during the first few years of life the higher death-rate of male infants tends to counteract the excess of male births is confirmed by the fact that out of 358,478 male infants born from 1940 to 1944, 14,683 (40.96 per 1,000) died during the first year of life, while of 341,741 female infants only 11,135 (32.58 per 1,000) died during the first year. Still-births are not included in any of the tables relating to deaths.

INFANTILE DEATHS AND DEATH-RATES : AUSTRALIA.

Year.	Registered deaths under one year.			Rate of Infantile Mortality.(a)		
	Males.	Females.	Total.	Males.	Females.	Total.
1901 ..	5,888	4,778	10,666	112.13	94.73	103.61
1911 ..	4,745	3,624	8,369	75.91	60.72	68.49
1921 ..	5,111	3,841	8,952	72.97	58.06	65.73
1931 ..	2,889	2,195	4,994	47.34	36.62	42.14
1940 ..	2,766	2,089	4,855	42.82	33.83	38.43
1941 ..	3,023	2,321	5,344	43.84	35.40	39.72
1942 ..	3,096	2,304	5,400	44.09	34.66	39.50
1943 ..	3,071	2,342	5,413	40.22	32.11	36.26
1944 ..	2,727	2,079	4,806	36.08	27.72	31.34

(a) Number of deaths under 1 year per 1,000 live births registered.

(ii) *States, 1901 to 1944.* For each State and Territory the rates of infantile mortality during the period 1901 to 1944 were as follows :—

INFANTILE MORTALITY RATES (a) : UNDER ONE YEAR.

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	N.T.	A.C.T.	Aust.
1901-05..	97.02	95.91	94.35	86.70	124.79	90.00	149.35	(b)	96.91
1906-10..	77.30	79.90	71.27	68.38	89.80	83.18	143.79	(b)	77.61
1911-15..	71.05	72.23	65.68	67.26	72.43	70.91	85.11	32.56	70.32
1916-20..	64.82	67.18	63.04	61.93	61.73	63.84	67.15	40.40	64.67
1921-25..	58.11	61.93	50.09	54.19	59.14	60.44	40.82	60.24	57.88
1926-30..	54.74	52.34	47.41	40.95	49.27	53.37	66.09	71.31	51.99
1931-35..	41.92	42.76	39.46	35.12	40.81	44.47	80.60	(c) 34.48	41.27
1936-40..	41.18	37.63	36.75	33.08	39.70	41.23	44.80	21.78	38.81
1940 ..	39.02	39.45	35.32	35.54	44.18	35.24	46.24	10.49	38.43
1941 ..	43.77	36.21	30.13	32.47	35.28	48.98	83.33	16.39	39.72
1942 ..	40.19	41.67	34.77	39.72	36.86	42.41	43.48	22.96	39.50
1943 ..	36.18	35.76	37.79	36.67	32.63	40.56	75.00	18.62	36.26
1944 ..	30.68	31.96	31.32	29.07	32.57	38.27	22.47	23.44	31.34

(a) Number of deaths under 1 year per 1,000 live births registered.

(b) Part of New South Wales

prior to 1911. (c) Based on deaths of infants born in the Australian Capital Territory. See footnote, page 517, § 2 (3).

INFANTILE MORTALITY RATES^(a): UNDER ONE MONTH.

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	N.T.	A.C.T.	Aust.
1901-05 ..	33.11	34.49	32.13	30.73	37.09	33.54	(b)	(c)	33.46
1906-10 ..	31.47	32.45	30.87	26.83	30.74	29.17	(b)	(c)	31.10
1911-15 ..	31.75	33.07	30.73	29.07	30.87	32.68	38.30	23.26	31.69
1916-20 ..	32.12	33.57	29.62	29.43	29.43	31.48	40.77	35.35	31.70
1921-25 ..	29.97	32.19	27.44	27.83	27.56	31.73	11.66	18.07	29.91
1926-30 ..	29.63	29.75	27.66	26.84	25.10	33.12	14.37	28.86	28.96
1931-35 ..	27.62	27.78	27.91	22.99	25.11	30.09	35.26	23.45	27.27
1936-40 ..	27.63	25.94	26.15	21.62	22.62	29.56	28.80	16.33	26.19
1940 ..	25.58	26.41	25.38	22.66	25.66	25.83	34.68	3.50	25.50
1941 ..	29.52	26.07	25.70	20.43	19.07	33.62	41.67	10.93	26.63
1942 ..	25.49	27.75	25.32	20.39	20.70	28.27	21.74	7.65	25.35
1943 ..	23.83	23.98	25.39	22.98	21.47	28.59	50.00	13.30	24.04
1944 ..	21.96	23.09	21.70	19.31	21.35	25.00	22.47	23.44	22.04

(a) Number of deaths of children aged under one month per 1,000 live births registered. (b) Not available. (c) Part of New South Wales prior to 1911. (d) Based on deaths of infants born in the Australian Capital Territory. See footnote, page 517, § 2 (3).

INFANTILE MORTALITY RATES^(a): ONE MONTH AND UNDER ONE YEAR.

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	N.T.	A.C.T.	Aust.
1901-05 ..	63.91	61.42	62.22	55.97	87.70	56.46	(b)	(c)	63.45
1906-10 ..	45.83	47.45	40.40	41.55	59.06	54.01	(b)	(c)	46.51
1911-15 ..	39.30	39.16	34.95	38.19	41.56	38.23	46.81	9.30	38.63
1916-20 ..	32.70	33.61	33.42	32.50	32.30	32.36	26.38	5.05	32.97
1921-25 ..	28.14	29.74	23.55	26.36	31.58	28.71	29.16	42.17	27.97
1926-30 ..	25.11	22.59	19.75	20.11	24.17	20.25	51.72	42.45	23.03
1931-35 ..	14.30	14.98	11.55	12.13	15.70	14.38	45.34	11.03	14.00
1936-40 ..	13.55	11.69	10.60	11.46	17.08	11.67	16.00	5.45	12.62
1940 ..	13.44	13.04	9.94	12.88	18.52	9.41	11.56	6.99	12.93
1941 ..	14.25	10.14	13.43	12.04	16.21	15.36	41.66	5.46	13.09
1942 ..	14.70	13.92	9.45	19.33	16.16	14.14	21.74	15.31	14.15
1943 ..	12.35	11.78	12.40	13.69	11.16	11.97	25.00	5.32	12.22
1944 ..	8.72	8.87	9.62	9.76	11.22	13.27	..	..	9.30

(a) Number of deaths of children aged one month and under one year per 1,000 live births registered. (b) Not available. (c) Part of New South Wales prior to 1911. (d) Based on death of infants born in the Australian Capital Territory. See footnote, page 517, § 2 (3).

These tables disclose the striking decrease in infantile mortality achieved in Australia since the beginning of the century, the number of deaths of children aged under one year per thousand births for 1944 being less than one third of the average rate for 1901-05. The two lower tables reveal the fact that this improvement was due almost entirely to the decrease in deaths from preventable causes, the mortality rate for children aged one month but under one year declining by 84 per cent. while that for children aged under one month declined by only 34 per cent.

(iii) *Districts.* The total number of births and of deaths of children under one year of age for 1944 are shown in *Demography Bulletin*, No. 62, for each of the sixty-five districts for which vital statistics have been tabulated.

(iv) *Various Countries and Cities.* Compared with other countries Australia occupies a very favourable position. In 1942, the latest year for which comparable figures are available, only three countries recorded lower rates than Australia, viz., New Zealand, Sweden and Switzerland. The 1939 rate for Norway was also lower than the 1942 rate for Australia.

A study of the respective rates shows that a high birth-rate is often, though not invariably accompanied by a high infantile death-rate.

INFANTILE MORTALITY RATES : VARIOUS COUNTRIES.

Country.	Infantile Mortality Rate.(a)						Crude Birth-rate (b) 1939.
	1906-15.	1921-25.	1926-30.	1931-35.	1936-40.	1942.	
New Zealand (c)	61	43	37	32	32	29	18.7
Sweden	74	60	58	50	42	29	15.4
Queensland	68	51	47	39	37	35	20.1
Western Australia	81	59	49	41	40	37	19.4
Norway	(d)	52	49	45	(g) 40	(i) 37	15.9
Switzerland	108	65	54	48	45	38	15.2
Australia	74	58	52	41	39	40	17.7
South Australia	68	54	47	35	33	40	16.1
New South Wales	74	58	55	42	41	40	17.5
United States of America..	(d)	74	68	59	51	40	17.3
Netherlands	115	64	56	45	37	40	20.6
Victoria	76	62	52	43	38	42	16.2
Tasmania	77	60	53	44	41	42	21.0
Denmark	103	82	82	71	60	47	17.8
Union of South Africa (c)..	(e) 91	73	67	63	53	48	25.3
England and Wales	113	76	68	62	56	51	14.8
Canada	(d)	98	93	75	64	54	20.3
Great Britain and Northern Ireland	(d)	78	70	65	59	54	15.2
Germany	168	122	94	74	63	66	20.4
Finland	(e) 112	96	88	72	72	67	21.1
Scotland	113	92	85	81	76	69	17.4
Eire	92	69	70	68	69	69	19.1
France.. ..	122	95	89	73	70	71	14.6
Northern Ireland	92	82	79	78	77	76	19.5
Belgium	139	100	95	82	77	77	15.3
Argentina	(d)	116	113	97	96	84	24.0
Greece	(d)	(d)	(d)	122	(h) 112	(j) 99	23.5
Spain	156	143	124	113	121	103	16.5
Italy	144	127	119	105	103	108	23.5
Japan	151	159	137	120	(h) 112	(j) 114	26.3
Mexico	(d)	(f) 223	173	134	127	118	44.6
Ceylon	(e) 207	190	175	182	160	120	36.0
Czechoslovakia	(d)	155	147	130	(h) 122	(j) 121	(j) 16.8
Portugal	(d)	146	146	146	135	131	26.2
Hungary	(e) 198	187	172	157	131	134	19.6
Poland.. ..	(d)	(d)	147	137	(h) 139	(j) 140	(j) 24.6
Yugoslavia	(d)	(d)	151	153	(h) 141	(j) 144	25.9
Egypt	(d)	144	152	165	163	168	42.2
Rumania	(e) 195	201	192	182	180	183	28.3
Chile	(e) 301	265	229	248	234	195	33.4

(a) Number of deaths under 1 year per 1,000 births registered. (b) Number of births per 1,000 mean population. (c) White population only. (d) Not available. (e) 1911-13. (f) 1922-25. (g) 1935-39. (h) 1935-38. (i) 1939. (j) 1938.

In 1939 the Australian cities Melbourne, Brisbane and Adelaide were among the ten cities having the lowest rates in the following list. The list is headed by Oslo (28), Auckland (29), and Amsterdam (29), the next seven cities being San Francisco, Stockholm, Melbourne, Chicago, Copenhagen, Brisbane and Adelaide. Of the cities named Madras had the highest rate, 238.

INFANTILE MORTALITY RATES(a) : VARIOUS CITIES.

City.	Infantile Mortality Rate (a).		City	Infantile Mortality Rate (a).	
	1921.	1939.		1921.	1939.
Oslo	54	28	Cape Town	82	94
Auckland	54	29	Hamburg	95	50(c)
Amsterdam	54	29	Leipzig	136	50(c)
San Francisco	50	30	Antwerp	98	50
Stockholm	61	31	Johannesburg	101	52
Melbourne	74	32	Leeds	98	57
Chicago	84	32	Berlin	135	58(c)
Copenhagen	67	34	Breslau	170	58(c)
Brisbane	62	34	Birmingham	82	59
Adelaide	74	35	Paris	95	61
Sydney	62	35	Manchester	94	61
Wellington	61	36	Munich	126	64(c)
New York City	72	37	Cologne	140	66(c)
Perth	81	38	Montreal	158	70
Detroit	83	40	Liverpool	105	71
Christchurch	54	42	Rome	(b)	79(c)
Philadelphia	78	42	Edinburgh	96	81
Toronto	91	43	Belfast	115	85
Geneva	(b)	43	Glasgow	106	86
Los Angeles	68	45	Dublin	123	90
Hobart	75	47	Aberdeen	108	95
Sheffield	99	47	Lisbon	(b)	133
London	80	47	Cairo	(b)	191
Dresden	115	48(c)	Bombay	402	213
Washington	83	48	Madras	281	238

(a) Number of deaths under 1 year per 1,000 births registered. (b) Not available. (c) For 1938.

(v) *Causes of Deaths of Children under one Year.* The following table shows for 1944 the ages of all children who died under one year of age from each of twenty-three causes. Corresponding figures for 1942 and 1943 may be obtained from *Demography Bulletin* Nos. 60 and 61, respectively. The infantile mortality rates for all births are shown for 1911, 1921, 1931, 1941 and 1944 and for ex-nuptial births for 1925, 1931, 1941 and 1944. Full particulars of the causes of death of all children who died in 1944 under one year and also of those under one month are given for each State and Territory in *Demography Bulletin* No. 62. This contains in addition detailed information for Australia as to the age at which children died from each cause of death.

Pre-natal influences, such as malformation, congenital debility and premature birth, together with injuries at birth, accounted for 3,429 or 71 per cent. of all deaths under one year: and of these 3,429 deaths, 2,687 or 78 per cent., occurred less than a week after birth. Among the survivors of the first week, broncho-pneumonia caused the greatest number of deaths. This disease was responsible for 351 deaths, representing 7 per cent. of all deaths under one year, or 2.29 per 1,000 births. Diarrhoea and enteritis caused 207 deaths and other pneumonia 147.

CAUSES OF DEATH OF CHILDREN UNDER ONE YEAR: AUSTRALIA, 1944.

Cause of Death.	Age at Death.											Total under 1 year.				
	Under 1 week.	1 week.	2 weeks.	3 weeks.	1 month.	2 months.	3 months.	4 months.	5 months.	6 months.	7 months.		8 months.	9 months.	10 months.	11 months.
Cerebro-spinal Meningococcal Meningitis					1	1	5	1	3	5	5	4	1	3	3	33
Whooping Cough		1			8	5	7	3	2	2	2	1	5	3	1	30
Diphtheria					2			1	2		3	2		3	4	12
Erysipelas																
Respiratory Tuberculosis	1						3			1					1	6
Tuberculosis of Meninges						1			2	4	3		1			11
Tuberculosis, Other Forms							1		1						1	6
Syphilis		1			4	2			1	1		1				9
Measles							1				1				1	3
Meningitis (Non-meningococcal)		3	4	2	4	5	1	3	3	2	2	5	3	3	3	43
Convulsions	4	2		2	1						1					15
Acute Bronchitis	1				1	2	3	3	1	3				3	2	20
Broncho-pneumonia	40	18	13	18	30	25	39	34	18	24	30	18	16	13	15	351
Pneumonia, Other	15	8	4	4	20	14	14	15	7	11	10	5	9	4	7	147
Other Diseases of the Stomach					1	2						2				6
Diarrhoea and Enteritis	5	11	10	9	24	15	15	12	24	13	22	8	12	15	12	207
Hernia and Intestinal Obstruction	4	2	3	2	1	4	2	4	5	12	8	4	3	3	2	59
Congenital Malformations	325	63	25	17	76	38	25	18	13	14	8	12	7	10	4	655
Congenital Debility	91	15	10	9	9	6	8	4	1	1	2					157
Premature Birth	1,385	95	45	22	28	6	1									1,582
Injury at Birth	496	23	9	6	8			1	2	2	1					548
Other Diseases of Early Infancy	390	40	22	7	12	5	4	1	1	1		1		1	2	487
Other Causes	55	21	14	6	48	25	37	22	19	21	21	21	39	20	36	405
Total	2,813	302	159	106	279	157	166	122	105	118	121	85	99	81	93	4,806

	All Children.					Ex-nuptial Children.(a)				No. of Deaths 1944.
	No. of Deaths per 1,000 Total Births.					No. of Deaths per 1,000 Ex-nuptial Births.				
	1911.	1921.	1931.	1941.	1944.	1925.	1931.	1941.	1944.	
Cerebro-spinal Meningococcal Meningitis		0.03	0.08	0.16	0.22	0.48	0.17	0.39	0.58	4
Whooping Cough	1.57	1.97	1.58	1.27	0.25	2.06	1.71	1.94	0.29	2
Diphtheria	0.25	0.59	0.25	0.13	0.11	0.32	0.34			
Erysipelas	0.16	0.24	0.11	0.04		0.16		0.19		
Respiratory Tuberculosis	0.08	0.07	0.03	0.04	0.04				0.14	1
Tuberculosis of Meninges	0.31	0.18	0.22	0.10	0.07	0.32	0.34	0.19	0.14	1
Tuberculosis, Other Forms	0.22	0.08	0.04	0.05	0.04			0.19		
Syphilis	0.85	0.56	0.20	0.09	0.06	1.27	0.51	0.77	0.58	4
Measles	0.34	0.15	0.10	0.01	0.02	0.16	0.51			
Meningitis (Non-meningococcal)	1.83	1.10	0.32	0.30	0.28	0.32		0.19	0.44	3
Convulsions	2.55	1.45	0.39	0.17	0.10	2.38	0.51	0.39		
Acute Bronchitis	2.34	1.50	0.32	0.11	0.13	0.48	0.86		0.29	2
Broncho-pneumonia	2.86	3.08	2.82	2.96	2.29	8.09	5.31	4.65	3.33	23
Pneumonia, Other	1.90	2.08	1.62	1.42	0.95	2.38	3.43	2.32	1.74	12
Other Diseases of the Stomach	0.47	0.71	0.13	0.05	0.04	1.11	0.34	0.19		
Diarrhoea and Enteritis	16.99	15.01	3.26	2.07	1.35	19.18	8.39	4.26	3.62	25
Hernia and Intestinal Obstruction	0.72	0.57	0.41	0.19	0.38	0.47	0.17	0.39	0.29	2
Congenital Malformations	2.99	3.74	4.23	4.63	4.27	3.64	4.28	4.06	4.49	31
Congenital Debility (b)		7.64	2.60	1.98	1.02	9.51	7.19	3.48	1.16	8
Premature Birth	22.41	15.29	14.04	12.41	10.32	20.93	21.92	18.00	18.25	126
Injury at Birth			2.81	4.27	3.57	1.90	3.08	5.23	3.33	23
Other Diseases of Early Infancy	4.07	5.53	3.29	4.14	3.18	2.69	3.77	4.45	2.60	18
Other Causes	5.58	4.16	3.29	3.13	2.65	6.98	5.82	7.55	5.51	38
Total	68.49	65.73	42.14	39.72	31.34	84.83	68.65	58.83	46.78	323

(a) Included in figures for all children.

(b) Includes Icterus and Sclerema prior to 1931.

(vi) *Deaths of Ex-nuptial Children under one Year.* The deaths of ex-nuptial children were tabulated by this Bureau for the first time in 1925. The causes of death of these children in 1944 and the rates in respect of 1925, 1931, 1941 and 1944 are shown in the preceding table. Corresponding figures for 1942 and 1943 may be obtained from *Demography Bulletin* Nos. 60 and 61, respectively. Full particulars of the causes of death of ex-nuptial children who died in 1944 aged under one year and also of those under one month are given for each State and Territory in *Demography Bulletin* No. 62. This contains in addition detailed information for Australia as to the age at which ex-nuptial children died from each cause of death.

Pre-natal influences, such as malformation, congenital debility and premature birth, together with injuries at birth, accounted for 206 or 64 per cent., broncho-pneumonia for 23 or 7 per cent., and diarrhoea and enteritis for 25, or 8 per cent. of the total deaths of ex-nuptial children under 1 year.

9. Deaths in Age-groups.—A distribution into age groups has been made of the 358,833 deaths which occurred in Australia during the five years ended 1944, and the results are shown in the following table

AGGREGATE DEATHS IN AGE-GROUPS : AUSTRALIA, 1940 TO 1944.

Age-group (Years).	Number of Deaths.			Percentage of Total.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
				%	%	%
Under 1	14,684	11,134	25,818	7.41	6.93	7.19
1-4	4,089	3,294	7,383	2.06	2.05	2.06
5-19	6,032	4,010	10,042	3.04	2.50	2.80
20-39	12,141	12,067	24,208	6.13	7.51	6.75
40-59	41,604	28,847	70,451	20.99	17.96	19.63
60-64	19,545	12,541	32,086	9.86	7.81	8.94
65 and over	100,071	88,733	188,804	50.49	55.24	52.62
Age unspecified	36	5	41	0.02	..	0.01
Total	198,202	160,631	358,833	100.00	100.00	100.00

A table showing the corresponding percentages for earlier periods from the year 1901 has been added to show the movement over a longer term. The most striking change is the substantial decrease in the group "under 1 year". At the other end of the table, the group "65 years and over" has increased by a similar amount. The percentages in all age-groups under 40 have fallen and those in all age-groups from 40 onwards have risen. These changes are due partly to improvement in the efficiency of medical science and partly to changes in the age distribution of the population. The latter changes are themselves in part due to increased length of life made possible by medical science, and in part to changes in the volume of migration and the falling birth-rate :—

DEATHS IN AGE-GROUPS : PERCENTAGES, AUSTRALIA.

[illegible]

10. Deaths at Single Ages and in Age-Groups.—(i) *General.* The deaths registered in Australia in 1942, 1943 and 1944 will be found tabulated in groups of five years for each State and Territory and in single ages for Australia in *Demography Bulletin* Nos. 60-62, respectively. The deaths during the first fifteen years of life have been tabulated there in single ages and for the first year of life in shorter periods. A summary for Australia for 1944 is given in the following table :—

DEATHS AT SINGLE AGES AND IN AGE-GROUPS : AUSTRALIA, 1944.

Age at Death.	Males.	Fe-males.	Persons.	Age at Death.	Males.	Fe-males.	Persons.
Under 1 week ..	1,601	1,212	2,813	Total 5-9 years ..	345	221	566
1 week and under 2 ..	169	133	302	" 10-14 ..	303	184	487
2 weeks and under 3 ..	97	62	159	" 15-19 ..	403	266	669
3 weeks and under 1 month ..	63	43	106	" 20-24 ..	326	436	762
Total under 1 month	1,930	1,450	3,380	" 25-29 ..	355	538	893
1 month and under 3 ..	258	178	436	" 30-34 ..	498	584	1,082
3 months and under 6 ..	210	183	393	" 35-39 ..	693	694	1,387
6 months and under 12	330	267	597	" 40-44 ..	945	883	1,828
Total under 1 year ..	2,728	2,078	4,806	" 45-49 ..	1,440	1,102	2,542
1 year and under 2 ..	354	286	640	" 50-54 ..	2,248	1,585	3,833
2 years ..	180	124	304	" 55-59 ..	3,167	2,061	5,228
3 ..	107	100	207	" 60-64 ..	3,972	2,606	6,578
4 ..	103	72	175	" 65-69 ..	4,331	3,148	7,479
Total under 5 years	3,472	2,660	6,132	" 70-74 ..	4,701	3,897	8,598
				" 75-79 ..	4,618	4,326	8,944
				" 80-84 ..	3,666	3,720	7,386
				" 85-89 ..	1,768	2,075	3,843
				" 90-94 ..	470	632	1,102
				" 95-99 ..	84	139	223
				" 100 and over ..	11	18	29
				Age unspecified ..	4	1	5
				Total all ages ..	37,820	31,776	69,596

(ii) *Rates.* The following table gives the average annual death-rates in age-groups per 1,000 living for the period 1932 to 1934, i.e., the Census year 1933 and the years immediately preceding and following. Deaths in the Northern Territory and the Australian Capital Territory are included in the total for Australia but not in any of the States. Similar details for the years 1920 to 1922 are given in Official Year Book, No. 22, p. 975.

AVERAGE ANNUAL DEATH-RATES : AGE-GROUPS, 1932-34.

Age-group (Years).	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia
MALES.							
0-4 ..	12.51	12.65	12.21	9.91	12.81	12.77	12.33
5-9 ..	1.41	1.72	1.56	1.21	1.56	2.08	1.53
10-14 ..	1.23	1.38	1.08	1.04	1.40	1.27	1.24
15-19 ..	1.69	1.76	1.93	1.71	1.76	2.05	1.76
20-24 ..	2.28	2.31	2.81	2.31	2.52	2.73	2.41
25-29 ..	2.21	2.58	2.93	2.50	2.85	2.98	2.52
30-34 ..	2.81	2.82	3.50	2.53	3.10	3.78	2.96
35-39 ..	3.76	3.85	4.61	3.26	4.01	4.71	3.92
40-44 ..	5.34	4.93	6.04	4.71	5.69	4.85	5.28
45-49 ..	7.91	7.61	7.98	6.80	8.81	6.90	7.76
50-54 ..	11.62	11.25	11.82	9.81	13.48	9.96	11.45
55-59 ..	17.70	18.68	17.58	15.15	21.43	14.47	17.89
60-64 ..	25.74	26.66	26.92	25.08	28.26	23.92	26.27
65-69 ..	39.99	41.17	39.94	36.14	42.40	35.11	40.03
70-74 ..	62.28	63.96	58.90	57.29	63.40	59.22	61.85
75-79 ..	95.52	98.12	94.59	92.66	105.14	94.23	96.26
80-84 ..	156.44	157.81	168.61	146.83	176.82	160.80	158.70
85-89 ..	231.04	233.33	218.42	239.45	264.96	204.45	230.75
90 and over	313.38	348.76	314.86	303.07	380.77	461.97	327.55

AVERAGE ANNUAL DEATH-RATES: AGE-GROUPS, 1932-34—*continued*.

Age-group (Years).	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
FEMALES.							
0-4 ..	10.05	7.04	10.72	8.30	8.64	10.42	10.00
5-9 ..	1.17	1.30	1.03	1.03	1.27	1.54	1.19
10-14 ..	0.83	0.97	0.93	0.90	0.99	0.91	0.90
15-19 ..	1.36	1.39	1.50	1.23	1.26	2.22	1.39
20-24 ..	2.03	2.00	2.77	2.35	1.94	2.58	2.11
25-29 ..	2.44	2.50	2.81	2.74	2.75	3.74	2.60
30-34 ..	2.88	2.87	3.44	2.64	3.13	3.63	2.97
35-39 ..	3.75	3.37	4.05	3.88	4.24	4.43	3.74
40-44 ..	4.24	4.32	4.89	4.10	5.79	4.88	4.37
45-49 ..	6.02	6.11	6.14	5.78	6.35	5.44	6.03
50-54 ..	8.27	8.81	8.61	8.07	9.08	10.08	8.56
55-59 ..	11.62	12.49	12.02	11.26	10.69	11.62	15.54
60-64 ..	17.27	18.73	17.19	17.78	17.32	16.87	17.77
65-69 ..	29.55	29.91	27.01	27.13	29.81	30.46	29.21
70-74 ..	45.95	48.18	49.03	42.31	44.10	48.31	46.70
75-79 ..	74.78	81.13	76.29	75.65	74.42	83.58	77.47
80-84 ..	125.55	127.91	126.63	120.74	120.99	125.15	125.68
85-89 ..	119.40	204.57	208.19	207.40	192.39	195.28	199.94
90 and over	292.10	327.19	370.23	233.58	397.20	363.63	306.24

PERSONS.

0-4 ..	11.31	11.37	11.48	9.12	11.35	11.62	11.19
5-9 ..	1.29	1.51	1.30	1.12	1.41	1.81	1.36
10-14 ..	1.03	1.18	1.01	0.97	1.20	1.09	1.07
15-19 ..	1.52	1.57	1.72	1.47	1.51	2.14	1.58
20-24 ..	2.16	2.16	2.60	2.35	2.24	2.66	2.26
25-29 ..	2.32	2.54	2.87	2.61	2.80	3.35	2.56
30-34 ..	2.85	2.85	3.47	2.59	3.12	3.71	2.96
35-39 ..	3.76	3.61	4.34	3.57	4.12	4.56	3.83
40-44 ..	4.79	4.62	5.50	4.40	5.15	4.86	4.83
45-49 ..	6.99	6.84	7.14	6.29	7.67	6.19	6.92
50-54 ..	10.00	10.00	10.37	8.93	11.47	10.02	10.04
55-59 ..	14.70	15.46	14.86	13.19	16.63	13.09	14.88
60-64 ..	21.56	22.46	22.41	21.35	23.44	20.52	22.04
65-69 ..	34.90	35.29	34.06	31.39	37.01	32.87	34.69
70-74 ..	54.31	55.68	54.55	49.43	55.28	53.89	54.38
75-79 ..	85.18	89.06	86.33	83.92	91.08	88.97	86.82
80-84 ..	140.43	140.48	148.56	132.56	149.72	142.64	141.13
85-89 ..	209.89	215.56	213.10	220.66	222.90	199.07	214.17
90 and over	301.13	334.60	341.25	253.61	389.21	376.36	314.41

11. Deaths of Centenarians.—In previous years, up to and including Official Year Book No. 33, particulars are given concerning persons aged 100 years and upwards who died each year. However, while the Registrars-General of the various States verify the ages as far as possible, absolute reliance cannot be placed on the accuracy of the information owing to the well-known tendency of very old people to overstate their

ages, and it is considered advisable to discontinue publication of this table. In connexion with this question it may be noted that while parish registers in the United Kingdom often date very far back, compulsory registration of births dates practically from 1874 only, the Act of 1836 having left many loopholes for those unwilling to register the births of their children.

12. Length of Residence in Australia of Persons who Died.—The length of residence in Australia of all persons whose deaths were registered in 1940 is shown in the following table. Tabulations for subsequent years were discontinued but will be revived for 1945.

LENGTH OF RESIDENCE IN AUSTRALIA OF PERSONS WHO DIED IN 1940.

Length of Residence.	Male Deaths.	Female Deaths.	Total Deaths.	Length of Residence.	Male Deaths.	Female Deaths.	Total Deaths.
Born in Australia ..	28,139	23,178	51,317	Resident 25 to 29 years ..	1,000	712	1,802
Resident under 1 year ..	54	25	79	" 30 to 34 ..	796	371	1,167
" 1 year ..	31	28	59	" 35 to 39 ..	320	159	479
" 2 years ..	26	16	42	" 40 to 44 ..	538	232	770
" 3 ..	21	20	41	" 45 to 49 ..	303	213	601
" 4 ..	13	12	25	" 50 to 54 ..	1,321	793	2,114
" 5 ..	16	14	30	" 55 to 59 ..	1,100	761	1,861
" 6 ..	25	5	30	" 60 to 64 ..	871	611	1,512
" 7 ..	11	9	20	" 65 yrs. and over ..	1,112	1,275	2,387
" 8 ..	18	9	27	Length of residence not stated ..	1,191	472	1,963
" 9 ..	17	5	16				
" 10 to 14 years ..	386	247	633				
" 15 to 19 ..	530	301	831	Total ..	3,608	29,776	68,384
" 20 to 24 ..	295	275	570				

13. Birthplace of Persons who Died.—A table giving a summary of birthplaces of persons whose deaths were registered in 1911 and 1940 will be found in Official Year Book No. 34, p. 337. More detailed information will be found in *Demography Bulletin* No. 58. Tabulations for subsequent years were discontinued but will be revived for 1945.

14. Occupation of Males who Died.—A summary of the main groups of occupations of males who died during 1921, 1931, 1941, 1942, 1943 and 1944, together with the percentage of each group on the total, is given in the following table.

OCCUPATION OF MALES WHO DIED : AUSTRALIA.

Number of Male Deaths.

Occupation Group.	1921.	1931.	1941.	1942.	1943.	1944.
Agricultural, Pastoral, Mining, etc. ..	5,711	6,157	7,854	8,357	8,205	7,788
Industrial ..	8,613	10,330	7,235	7,689	7,551	7,115
Transport and Communication ..	1,841	2,189	2,692	3,032	2,874	2,695
Commercial ..	2,739	3,727	3,554	3,726	3,559	3,411
Professional ..	1,307	1,534	3,872	3,591	3,894	3,541
Personal Service ..	830	846	955	973	975	1,014
Indefinite(a) ..	9,611	7,013	13,247	14,219	13,720	12,256
Total ..	30,652	31,796	39,409	41,587	40,778	37,820

OCCUPATION OF MALES WHO DIED: AUSTRALIA—*continued*.

Occupation Group.	Percentage of Total.					
	1921.	1931.	1941.	1942.	1943.	1944.
Agricultural, Pastoral, Mining, etc.	% 18.63	% 19.36	% 19.93	% 20.10	% 20.12	% 20.59
Industrial	28.10	32.49	18.36	18.49	18.52	18.81
Transport and Communication	6.01	6.89	6.83	7.29	7.05	7.13
Commercial	8.94	11.72	9.02	8.96	8.73	9.02
Professional	4.26	4.82	<i>b</i> 9.83	<i>b</i> 8.63	<i>b</i> 9.55	<i>b</i> 9.36
Personal Service	2.71	2.66	2.42	2.34	2.39	2.68
Indefinite (<i>a</i>)	31.35	22.06	<i>c</i> 33.61	<i>c</i> 34.19	<i>c</i> 33.64	<i>c</i> 32.41
Total	100.00	100.00	100.00	100.00	100.00	100.00

(*a*) Includes dependent and unoccupied males. (*b*) Includes clerks, etc. not specified as belonging to any industry, formerly included under "Commercial". (*c*) Includes labourers, not specified as belonging to any industry, formerly included under "Industrial".

15. **Causes of Death.**—(i) *General.* The classification adopted by this Bureau is that of the International Institute of Statistics, as amended by the Committees of Revision which met in Paris in 1909, 1920, 1929 and 1938.

(ii) *Mortality Statistics for 1907 and Subsequent Years.* The statistics relating to causes of death in Australia from 1907 onward have been tabulated in this Bureau in accordance with the above-mentioned classification, and the system is being employed also in the State statistical offices. Particulars for 1944 have been tabulated on the 1938 revision of the International List.

(iii) *Classification of Causes of Death, according to the Intermediate and the Abridged International Classifications.* An abridged classification, which enumerates forty-three diseases and groups of diseases according to the revised classification, has been in use in many European countries and American States until recently, and a table has been given in past issues of the Official Year Book showing the causes of death according to the abridged classification, so that the results may be compared with those of other countries which used the abridged index.

As the result of an international treaty signed in London in 1934, the intermediate classification of causes of death, or the "minimum nomenclature" covering 87 main causes or groups of causes, has now been adopted in most countries for the purpose of making international comparisons. This classification appears in the pages following and shows the number of deaths during 1944 in Australia for each cause enumerated. To preserve continuity with former statistics, particulars for 1944 have been compiled in the abridged form and are shown on p. 555 in conjunction with those for the previous four years, and averages over five-yearly periods to 1936–40 are shown in the same form on p. 556.

The compilations for the years 1940 to 1944 will be found in full detail in *Demography Bulletins*, Nos. 58 to 62. In the following tables in which the intermediate classification has been employed, tables A., B. and C show deaths of males, females and persons, respectively, for 1944. Table D shows in the abridged form, on the basis of the 1938 revision of the International List, the number of persons who died in each of the years 1940 to 1944 and gives the rate per million of population for the last-named year.

Since death-rates are subject to continual fluctuation, it is unsafe to base deductions on the figures relating to a single year. In order, therefore, to furnish a valid basis for comparison, three five-yearly periods have been shown in table E giving the number of deaths and the rates per million persons. While the absolute number of deaths has increased, the death-rate has shown a very satisfactory decrease, which is reflected in the great majority of the causes specified in the table.

A.—CAUSES OF DEATH : MALES, 1944.

INTERMEDIATE CLASSIFICATION.

(Figures in parentheses indicate the abridged classification number in each instance.)

Intermediate Classification.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S. Aus.	W. Aus.	Tas.	N.T.	A.C.T.	All
7. Typhoid and Paratyphoid fevers (1)	1, 2	3	1	2	1	1	..	..	..	8
2. Plague (2)	3	..	..	..	..	..	..	..	..	..
3. Scarlet Fever (3)	8	5	4	1	2	1	..	..	..	13
4. Whooping Cough (4)	9	8	9	5	1	1	6	..	..	30
5. Diphtheria (5)	10	30	19	14	10	12	6	..	..	91
6. Tuberculosis of the Respiratory System (6)	13	548	422	205	102	103	46	1	3	1,430
7a. Tubercular Meningitis (7a)	14 (a)	14	11	1	4	1	2	..	..	33
7b. Other forms of Tuberculosis (7b)	14 (b)-22	21	30	8	11	7	7	..	..	84
8. Septicæmia, Purulent Infection (Non-puerperal) (14)	24	17	9	5	1	4	..	..	..	36
9. Dysentery (14)	27	7	3	9	2	1	..	..	..	22
10. Malaria (8)	28	2	..	3	1	..	..	..	..	6
11. Syphilis (9)	30	95	112	49	19	29	11	1	..	316
12a. Influenza—Pneumonic (10a)	33 (a)	21	11	7	..	2	..	..	..	41
12b. Influenza—Other (10b)	33 (b)	22	14	6	2	4	2	..	..	50
13. Small-pox (11)	34	..	..	..	..	..	..	..	..	..
14. Measles (12)	35	2	..	2	1	..	1	..	..	6
15. Typhus Fever (13)	39	2	..	4	..	2	..	..	..	8
16. Diseases caused by Helminths (14)	40-42	8	10	2	1	1	2	..	..	24
17. Other Infectious and Parasitic Diseases (14)	*	80	44	55	18	11	8	1	..	217
18. Cancer of the Buccal Cavity and Pharynx (15)	45	85	64	41	17	20	4	..	..	231
19. Cancer of the Digestive Organs and Peritoneum (15)	46	869	744	316	194	195	75	..	3	2,396
20. Cancer of the Respiratory System (15)	47	139	121	45	30	35	15	..	1	386
22. Cancer of the Breast (15)	50	1	3	..	..	1	..	..	..	5
23. Cancer of Other or Unspecified Organs (15)	49, 51-55	411	336	172	106	84	35	..	2	1,146
24. Non-malignant Tumours or Tumours of Unspecified Nature (16)	56, 57	91	48	31	18	12	4	..	1	205
25. Acute Rheumatic Fever (20)	58	33	29	14	1	7	5	..	..	89
26. Chronic Rheumatism and Gout (17)	59, 60	11	16	7	7	2	3	..	..	46
27. Diabetes Mellitus (18)	61	148	147	56	35	21	11	..	..	418
28. Diseases of the Thyroid and Parathyroid Glands (20)	63	10	11	2	4	2	..	..	..	29
29. Other General Diseases (20)	62, 64-66	20	18	5	7	3	1	..	..	54
30. Avitaminoses (20)	67-71	..	..	..	..	..	1	..	..	1
31. Anæmias (20)	73	39	21	14	10	8	4	..	..	96
32. Leucæmias, Pseudoleucæmias, and other Diseases of the Blood and Blood-making Organs (20)	72, 74-76	61	44	28	23	11	5	..	1	173
33. Alcoholism (acute or chronic) (19)	77	19	8	17	8	2	2	..	..	56
34. Other Chronic Poisonings (20)	78, 79	1	..	5	2	1	..	..	..	9
35. Meningitis (Non-meningococcal) (21)	81	37	29	21	3	8	1	..	..	99
36. Diseases of the Spinal Cord (21)	82	44	26	24	6	12	2	..	1	115
37. Intra-cranial Lesions of Vascular Origin (22)	83	1,198	738	338	301	168	100	..	3	2,846
38. Mental Diseases and Deficiency (23)	84	23	7	11	6	..	1	..	..	48
39. Epilepsy (23)	85	53	31	9	3	10	..	..	..	106
40. Other Diseases of the Nervous System (23)	80, 86, 87	104	57	39	27	17	11	..	..	255
41. Diseases of the Eye, Ear and their Annexa (23)	88, 89	14	8	..	15	1	2	..	..	40
42. Pericarditis (24)	90	6	6	2	..	3	..	..	..	17
43. Chronic Affections of the Valves and Endocardium (24)	92	277	230	130	72	59	30	..	2	800
44. Diseases of the Myocardium (21)	93	2,780	1,788	965	490	367	157	3	8	6,558
45. Diseases of the Coronary Arteries and Angina Pectoris (21)	91	1,172	1,047	488	303	224	137	1	4	3,676
46. Other Diseases of the Heart (24)	91, 95	301	165	57	60	33	19	..	2	637

* No. 17:—4-7, 11, 12, 23, 25, 26, 29, 31, 32, 36-38, 43, 44.

A.—CAUSES OF DEATH: MALES, 1944—*continued*.

INTERMEDIATE CLASSIFICATION.

(Figures in parentheses indicate the abridged classification number in each instance.)

Intermediate Classification.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S.Aus.	W. Aus.	Tas.	Nor. Ter.	A. C. T.	Aus-tralia.
47. Arteriosclerosis and Gangrene (25)	97, 98	190	301	65	60	109	52	1	1	779
48. Other Diseases of the Circulatory System (25)	96, 99-103	81	50	48	12	16	19	..	..	226
49a. Acute Bronchitis (26a)	106 (a) (c)	41	15	13	6	2	4	1	..	82
49b. Chronic Bronchitis (26b)	106 (b) (d)	99	86	46	33	27	5	..	..	296
50. Pneumonia and Broncho-pneumonia (27)	107-109	693	614	256	165	196	125	..	1	2,050
51. Pleurisy (28)	110	30	28	13	12	8	3	1	..	95
52. Other Diseases of the Respiratory System (except Tuberculosis) (28)	104, 105, 111-114	140	117	92	53	57	18	..	..	477
53. Ulcer of the Stomach and Duodenum (32b)	117	159	140	47	46	36	15	1	1	445
54. Diarrhoea and Enteritis (under 2 years of age) (29a)	119	62	44	37	13	23	2	..	..	181
55. Diarrhoea and Enteritis (2 years and over) (29b)	120	49	26	24	4	9	5	..	..	117
56. Appendicitis (30)	121	101	59	36	19	10	10	1	..	236
57. Hernia, Intestinal Obstruction (32a)	122	146	101	65	33	15	15	..	..	375
58. Cirrhosis of the Liver (31a)	124	64	52	22	16	12	6	..	..	172
59. Other Diseases of the Liver and Biliary Passages, including Biliary Calculi (31b)	125-127	54	51	27	16	17	5	..	..	170
60. Other Diseases of the Digestive System (32b)	*	92	56	36	18	12	6	..	..	220
61. Nephritis (33)	130-132	652	657	288	106	105	74	..	..	1,882
62. Other Diseases of the Kidneys and Ureters (34)	133	52	42	21	7	13	7	..	..	142
63. Calculi of the Urinary Passages (34)	134	14	14	22	5	7	1	..	..	63
64. Diseases of the Urinary Bladder (34)	135	22	22	12	7	..	6	..	..	69
65. Diseases of the Urethra, Urinary Abscess, etc. (34)	136	7	10	4	2	4	..	..	..	..
66. Diseases of the Prostate (34)	137	160	190	68	51	53	35	..	..	557
67. Diseases of the Genital Organs, not specified as Venereal (34)	138, 139	2	3	1	1	..	..	..	..	7
68. Diseases of the Skin and Cellular Tissue (37)	151-153	20	8	13	7	4	1	..	1	54
69. Diseases of the Bones and Organs of Locomotion (except Tuberculosis and Rheumatism) (37)	154-156	30	9	8	7	4	7	..	..	65
70. Congenital Malformations (Stillbirths not included) (38)	157	177	116	65	32	21	18	1	1	431
71. Congenital Debility (38)	158	31	16	11	6	8	4	..	..	76
72. Premature Birth (38)	159	335	239	160	57	71	35	..	2	899
73. Injury at Birth (38)	160	140	70	61	30	23	10	..	..	334
74. Other Diseases Peculiar to the First Year of Life (38)	161	118	78	35	24	18	3	..	1	277
75. Senility (39)	162	505	302	181	117	85	33	1	1	1,225
76. Suicide (40)	163, 164	150	84	50	34	31	12	1	..	362
77. Homicide (41)	165, 168	32	10	10	6	2	3	1	..	64
78. Automobile Accidents (42)	170	198	172	100	41	49	18	1	1	580
79. Other Violent or Accidental Deaths (43)	169, 171-195	661	390	273	145	129	60	7	3	1,668
80. Deaths due to Operations of War (43)	196, 197	..	..	..	..	1	..	..	..	1
81. Legal Executions (43)	198	..	..	..	1	..	..	..	..	1
82. Un-defined or Unspecified (44)	199, 200	55	31	20	52	1	2	1	1	163
Total Males	..	14,494	10,644	5,445	3,168	2,664	1,335	25	45	37,820

* No 60:—115, 116, 118, 123, 128, 129

B.—CAUSES OF DEATH : FEMALES, 1944.

INTERMEDIATE CLASSIFICATION.

(Figures in parentheses indicate the abridged classification number in each instance.)

Intermediate Classification.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S. Aus.	W. Aus.	Tas.	N.T.	A. C. T.	Abstr.
1. Typhoid and Paratyphoid Fevers (1) ..	1, 2	2	3	2	1	..	2	..	..	10
2. Plague (2) ..	3	..	..	..	..	..	..	..	..	..
3. Scarlet Fever (3) ..	8	6	4	..	1	..	..	..	..	..
4. Whooping Cough (4) ..	9	12	9	7	..	..	3	..	1	14
5. Diphtheria (5) ..	10	39	15	12	8	12	4	..	..	31
6. Tuberculosis of the Respiratory System (6) ..	13	277	257	79	56	31	35	..	..	735
7a. Tubercular Meningitis (7a) ..	14(a)	10	11	..	4	2	4	..	..	31
7b. Other Forms of Tuberculosis (7b) ..	14b-22	25	22	1	11	5	10	..	..	74
8. Septicæmia, Purulent Infection (Non-puerperal) (14) ..	24	12	11	4	..	1	2	..	..	30
9. Dysentery (14) ..	27	8	1	8	1	..	..	..	..	18
10. Malaria (8) ..	28	..	..	2	..	..	..	..	..	2
11. Syphilis (9) ..	30	24	35	13	4	5	1	..	..	82
12a. Influenza—Pneumonic (8a) ..	33(a)	12	3	11	1	1	3	..	..	31
12b. Influenza—Other (8b) ..	33(b)	24	18	11	2	2	1	..	..	58
13. Small-pox (11) ..	34	..	..	..	..	..	..	..	..	..
14. Measles (12) ..	5	2	..	..	3	..	..	..	..	5
15. Typhus Fever (13) ..	..	..	..	..	..	3	..	..	..	3
16. Diseases caused by Helminths (14) ..	40-42	6	12	2	1	2	3	..	..	26
17. Other Infectious and Parasitic Diseases (14) ..	*	53	56	28	14	9	8	3	..	171
18. Cancer of the Buccal Cavity and Pharynx (15) ..	45	26	24	4	5	6	5	..	..	70
19. Cancer of the Digestive Organs and Peritoneum (15) ..	46	706	620	237	180	103	63	..	3	1,912
20. Cancer of the Respiratory System (15) ..	47	41	32	4	18	7	2	..	..	104
21. Cancer of the Uterus (15) ..	48	262	185	80	66	33	17	..	1	644
22. Cancer of the Breast (15) ..	50	349	278	99	78	44	30	..	1	879
23. Cancer of Other or Unspecified Organs (15) ..	49, 51-55	292	252	96	94	38	24	..	2	798
24. Non-malignant Tumours or Tumours of Unspecified Nature (16) ..	56, 57	94	64	34	30	23	11	..	..	256
25. Acute Rheumatic Fever (20) ..	58	31	24	15	2	13	..	..	1	86
26. Chronic Rheumatism and Gout (17) ..	59, 60	23	39	8	12	8	7	..	..	97
27. Diabetes Mellitus (18) ..	61	344	268	110	91	30	33	..	..	876
28. Diseases of the Thyroid and Parathyroid Glands (20) ..	63	65	38	31	16	3	5	..	..	158
29. Other General Diseases (20) ..	62, 64-66	29	20	6	6	4	3	..	..	68
30. Avitaminoses (20) ..	67-71	1	..	1	1	..	..	..	..	3
31. Anæmias (20) ..	73	71	32	11	14	11	10	..	..	149
32. Leucæmias, Pseudoleucæmias, and other Diseases of the Blood and Blood-making Organs (20) ..	72, 74-76	46	39	23	11	6	3	..	..	128
33. Alcoholism (acute or chronic) (19) ..	77	7	4	3	2	2	1	..	..	19
34. Other Chronic Poisonings (20) ..	78, 79	1	..	3	..	..	..	..	..	4
35. Meningitis (Non-meningococcal) (21) ..	81	24	17	11	4	6	4	..	..	66
36. Diseases of the Spinal Cord (21) ..	82	37	27	9	13	9	..	..	..	95
37. Intra-cranial Lesions of Vascular Origin (22) ..	83	1,532	1,209	399	394	230	144	..	1	3,909
38. Mental Diseases and Deficiency (23) ..	84	21	10	13	3	1	3	..	..	51
39. Epilepsy (23) ..	85	27	20	7	8	2	4	..	..	68
40. Other Diseases of the Nervous System (23) ..	80, 86, 87	91	51	34	19	14	5	..	..	214
41. Diseases of the Eve, Ear and their Annexa (23) ..	88, 89	6	9	4	6	..	..	..	..	25
42. Pericarditis (24) ..	90	2	5	1	2	7	1	..	..	18
43. Chronic Affections of the Valves and Endocardium (24) ..	92	278	225	106	65	32	29	..	2	737
44. Diseases of the Myocardium (24) ..	93	2,347	1,837	652	441	238	114	..	3	5,632
45. Diseases of the Coronary Arteries and Angina Pectoris (24) ..	94	776	538	210	155	107	55	..	..	1,841
46. Other Diseases of the Heart (21) ..	91, 95	154	192	50	46	34	18	1	..	495
47. Arteriosclerosis and Gangrene (25) ..	97, 98	227	324	39	57	66	53	..	..	766
48. Other Diseases of the Circulatory System (25) ..	96, 99-103	61	49	32	12	15	18	..	..	187

* No. 17: 4 7, 11, 12, 23, 25 26 29, 31, 32 36-38, 43, 44

B.—CAUSES OF DEATH: FEMALES, 1944—*continued*.

INTERMEDIATE CLASSIFICATION.

(Figures in parentheses indicate the abridged classification number in each instance.)

Intermediate Classification.	General Classification	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	A. C. T.	Australia
49a. Acute Bronchitis (26a) ..	106 (a) (c)	33	7	14	8	..	6	..	..	68
49b. Chronic Bronchitis (26b) ..	106 (b) (d)	63	51	30	12	7	5	..	..	168
50. Pneumonia and Broncho-Pneumonia (27) ..	107-109	525	537	164	124	126	70	..	..	1,546
51. Pleurisy (28) ..	110	14	21	6	6	3	2	..	..	52
52. Other Diseases of the Respiratory System (except Tuberculosis) (28) ..	104, 105, 111-114	117	105	48	34	21	17	..	..	342
53. Ulcer of the Stomach and Duodenum (32b) ..	117	43	36	13	9	3	2	..	..	106
54. Diarrhoea and Enteritis (under 2 years of age) (29a) ..	119	29	25	24	8	19	5	..	1	111
55. Diarrhoea and Enteritis (2 years and over) (29b) ..	120	55	36	25	8	6	4	..	..	134
56. Appendicitis (30) ..	121	68	36	10	16	8	6	..	..	144
57. Hernia, Intestinal Obstruction (32a) ..	122	136	86	36	40	23	9	1	..	331
58. Cirrhosis of the Liver (31a) ..	124	26	27	13	6	8	4	..	..	84
59. Other Diseases of the Liver and Biliary Passages including Biliary Calculi (31b) ..	125-127	85	103	28	18	16	12	..	1	263
60. Other Diseases of the Digestive System (32b) ..	*	78	48	25	19	9	9	..	..	188
61. Nephritis (33) ..	130-132	518	620	257	79	61	75	..	3	1,613
62. Other Diseases of the Kidneys and Ureters (34) ..	133	54	41	14	6	10	7	..	..	132
63. Calculi of the Urinary Passages (34) ..	134	9	16	2	1	4	1	..	..	33
64. Diseases of the Urinary Bladder (34) ..	135	5	7	..	2	3	..	..	..	17
65. Diseases of the Urethra, Urinary Abscess, &c. (34) ..	136	..	..	..	..	..	..	..	..	..
67. Diseases of the Genital Organs not specified as Venereal or connected with Pregnancy &c. (34) ..	138, 139	30	35	13	8	5	5	..	..	96
68. Diseases and Accidents of Pregnancy (36) ..	142-145	26	27	27	8	8	1	..	..	97
69. Abortion, without mention of Infection (36) ..	141	8	4	1	2	2	2	..	..	19
70. Abortion, with mention of Infection (35a) ..	140	42	21	9	4	3	2	..	..	81
71. Infection during Child-birth and the Puerperium (35b) ..	147	36	11	8	4	4	5	..	..	68
72. Other Accidents and Diseases of Child-birth and the Puerperium (36) ..	146, 148-150	74	38	29	14	10	7	..	..	172
73. Diseases of the Skin and Cellular Tissue (37) ..	151-153	16	4	17	11	5	4	..	..	57
74. Diseases of the Bones and Organs of Locomotion (except Tuberculosis and Rheumatism) (37) ..	154-156	19	16	7	4	7	..	..	..	53
75. Congenital Malformations (Stillbirths not included) (38) ..	157	146	94	55	29	22	12	..	1	359
76. Congenital Debility (38) ..	158	32	22	10	9	5	3	..	..	81
77. Premature Birth (38) ..	159	272	180	103	47	45	34	1	1	683
78. Injury at Birth (38) ..	160	81	49	47	19	10	8	..	..	214
79. Other Diseases peculiar to the First Year of Life (38) ..	161	69	62	28	21	17	11	..	2	210
80. Senility (39) ..	162	483	321	163	157	94	50	..	..	1,268
81. Suicide (40) ..	163, 164	88	38	22	14	11	5	..	..	178
82. Homicide (41) ..	165-168	19	11	7	1	2	2	..	..	42
83. Automobile Accidents (42) ..	170	72	45	26	8	17	3	..	..	171
84. Other Violent or Accidental Deaths (43) ..	169, 171-195	287	173	137	82	55	33	..	1	768
85. Deaths due to Operations of War (43) ..	196, 197	..	..	..	..	..	..	..	..	..
86. Legal Executions (43) ..	198	..	..	..	..	..	..	..	..	..
87. Ill-defined or Unspecified (44) ..	199, 200	17	16	8	20	..	..	..	..	61
Total Females ..	..	12,158	9,858	3,940	2,816	1,814	1,159	6	25	31,776

* No. 60:—115, 116, 118, 123, 128, 129.

C.—CAUSES OF DEATH : PERSONS, 1944.

INTERMEDIATE CLASSIFICATION.

(Figures in parentheses indicate the abridged classification number in each instance.)

Intermediate Classification.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S. Aus.	W. Aus.	Tas.	N.T.	A. C. T.	Aust.
1. Typhoid and Paratyphoid Fevers (1)	1, 2	5	4	4	2	1	2	..	..	18
2. Plague (2)	3	..	..	..	..	..	..	..	..	..
3. Scarlet Fever (3)	8	11	8	3	3	1	..	..	1	27
4. Whooping Cough (4)	9	20	18	12	1	1	9	..	..	61
5. Diphtheria (5)	10	69	34	26	18	24	10	..	..	181
6. Tuberculosis of the Respiratory System (6)	13	825	679	284	158	134	81	1	3	2,165
7a. Tubercular Meningitis (7a)	14 (a)	24	22	1	8	3	6	..	..	64
7b. Other Forms of Tuberculosis (7b)	14 (b)-22	46	52	9	22	12	17	..	..	158
8. Septicæmia Purulent Infection (Non-puerperal) (14)	24	29	20	9	1	5	2	..	..	66
9. Dysentery (14)	27	15	4	17	3	1	..	..	..	40
10. Malaria (8)	28	2	..	5	1	..	..	..	..	8
11. Syphilis (9)	30	119	147	62	23	34	12	1	..	398
12a. Influenza (Pneumonic) (8a)	33 (a)	33	14	18	1	3	3	..	..	72
12b. Influenza (Other) (8b)	33 (b)	46	32	17	4	6	3	..	..	108
13. Small-pox (11)	34	..	..	..	..	..	..	..	..	..
14. Measles (12)	35	4	..	2	4	..	1	..	..	11
15. Typhus Fever (13)	39	2	..	4	..	5	..	..	..	11
16. Diseases caused by Helminths (14)	40-42	14	22	4	2	3	5	..	..	50
17. Other Infectious and Parasitic Diseases (14)	*	133	100	83	32	20	16	4	..	388
18. Cancer of the Buccal Cavity and Pharynx (15)	45	111	88	45	22	26	9	..	..	301
19. Cancer of the Digestive Organs and Peritoneum (15)	46	1,575	1,364	553	374	298	138	..	6	4,308
20. Cancer of the Respiratory System (15)	47	180	153	49	48	42	17	..	1	490
21. Cancer of the Uterus (15)	48	262	185	80	66	33	17	..	1	644
22. Cancer of the Breast (15)	50	350	281	99	78	45	30	..	1	884
23. Cancer of other or unspecified Organs (15)	49, 51-55	703	588	268	200	122	59	..	4	1,944
24. Non-malignant Tumours or Tumours of Unspecified Nature (16)	56, 57	185	112	65	48	35	15	..	1	461
25. Acute Rheumatic Fever (20)	58	64	53	29	3	20	5	..	1	175
26. Chronic Rheumatism and Gout (17)	59, 60	34	55	15	19	10	10	..	..	143
27. Diabetes Mellitus (18)	61	492	415	166	126	51	44	..	..	1,294
28. Diseases of the Thyroid and Parathyroid Glands (20)	63	75	49	33	20	5	5	..	..	187
29. Other General Diseases (20)	62, 64-66	49	38	11	13	7	4	..	..	122
30. Avitaminoses (20)	67-71	1	..	1	1	..	1	..	..	4
31. Anæmias (20)	73	110	53	25	24	19	14	..	..	245
32. Leucæmias, Pseudoleucæmias, and other Diseases of the Blood and Blood-making Organs (20)	72, 74-76	107	83	51	34	17	8	..	1	301
33. Alcoholism (acute or chronic) (19)	77	26	12	20	10	4	3	..	..	75
34. Other Chronic Poisonings (20)	78, 79	2	..	8	2	1	..	..	..	13
35. Meningitis (Non-meningococcal) (21)	81	61	46	32	7	14	5	..	..	165
36. Diseases of the Spinal Cord (21)	82	81	53	33	19	21	2	..	1	210
37. Intra-cranial Lesions of Vascular Origin (22)	83	2,730	1,947	737	695	398	244	..	4	6,755
38. Mental Diseases and Deficiency (23)	84	44	17	24	9	1	4	..	..	99
39. Epilepsy (23)	85	80	51	16	11	12	4	..	..	174
40. Other Diseases of the Nervous System (23)	80, 86, 87	195	108	73	46	31	16	..	..	469
41. Diseases of the Eye, Ear and their Annexa (23)	88, 89	20	17	4	21	1	2	..	..	65
42. Pericarditis (24)	90	8	11	3	2	10	1	..	..	35
43. Chronic Affections of the Valves and Endocardium (24)	92	555	455	236	137	91	59	..	4	1,537
44. Diseases of the Myocardium (24)	93	5,127	3,625	1,617	931	605	271	3	11	12,190
45. Diseases of the Coronary Arteries and Angina Pectoris (24)	94	2,248	1,585	698	458	331	192	1	4	5,517
46. Other Diseases of the Heart (24)	91, 95	453	357	107	106	67	37	1	2	1,132
47. Arteriosclerosis and Gangrene (25)	97, 98	417	625	104	117	175	105	1	1	1,545
48. Other Diseases of the Circulatory System (25)	96, 99-103	142	99	80	24	31	37	..	..	413
49a. Acute Bronchitis (26a)	106 (a) (r)	74	22	27	14	2	10	1	..	150

* No. 17:—4-7, 11, 12, 23, 25, 26, 29, 31, 32, 36-38, 43, 44.

C.—CAUSES OF DEATH: PERSONS, 1944—*continued*.

INTERMEDIATE CLASSIFICATION.

(Figures in parentheses indicate the abridged classification number in each instance.)

Intermediate Classification.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S. Aus.	W. Aus.	Tas.	N.T.	A. C. T.	Aust
49b. Chronic Bronchitis (26b) ..	106 (b) (d)	162	137	76	45	34	10	..	..	464
50. Pneumonia and Broncho-Pneumonia (27) ..	107-109	1,218	1,151	420	289	322	195	..	I	3,596
51. Pleurisy (28) ..	110	44	49	19	18	11	5	I	..	147
52. Other Diseases of the Respiratory System (except Tuberculosis) (28)	104, 105, 111-114	257	222	140	87	78	35	..	..	819
53. Ulcer of the Stomach and Duodenum (32b) ..	117	202	176	60	55	39	17	I	I	551
54. Diarrhoea and Enteritis* (under 2 years of age) (29a) ..	119	91	69	61	21	42	7	..	I	292
55. Diarrhoea and Enteritis (2 years and over) (29b) ..	120	104	62	49	12	15	9	..	..	251
56. Appendicitis (30) ..	121	169	95	46	35	18	16	I	..	380
57. Hernia, Intestinal Obstruction (32a) ..	122	282	187	101	73	38	24	I	..	706
58. Cirrhosis of the Liver (31a) ..	124	90	79	35	22	20	10	..	..	256
59. Other Diseases of the Liver and Biliary Passages including Biliary Calculi (31b) ..	125-127	139	154	55	34	33	17	..	I	433
60. Other Diseases of the Digestive System (32b) ..	..	170	104	61	37	21	15	..	..	408
61. Nephritis (33) ..	130-132	1,170	1,277	545	185	166	149	..	3	3,495
62. Other Diseases of the Kidneys and Ureters (34) ..	133	106	83	35	13	23	14	..	..	274
63. Calculi of the Urinary Passages (34) ..	134	23	30	24	6	11	2	..	..	96
64. Diseases of the Urinary Bladder (34) ..	135	27	29	12	9	3	6	..	..	86
65. Diseases of the Urethra, Urinary Abscess, etc. (34) ..	136	7	10	4	2	4	..	..	..	27
66. Diseases of the Prostate (34) ..	137	160	190	68	51	53	35	..	..	557
67. Diseases of the Genital Organs not specified as Venereal or connected with Pregnancy etc. (34)	138, 139	32	38	14	9	5	5	..	..	103
68. Diseases and Accidents of Pregnancy (36) ..	142-145	26	27	27	8	8	1	..	..	97
69. Abortion, without mention of Infection (36) ..	141	8	4	1	2	2	2	..	..	19
70. Abortion, with mention of Infection (35a) ..	140	42	21	9	4	3	2	..	..	81
71. Infection during Child-birth and the Puerperium (35) ..	147	36	11	8	4	4	5	..	..	68
72. Other Accidents and Diseases of Child-birth and the Puerperium (36) ..	146, 148-150	74	38	29	14	10	7	..	..	172
73. Diseases of the Skin and Cellular Tissue (37) ..	151-153	36	12	30	18	9	5	..	I	111
74. Diseases of the Bones and Organs of Locomotion (except Tuberculosis and Rheumatism) (37)	154-156	49	25	15	11	11	7	..	..	118
75. Congenital Malformations (Stillbirths not included) (38) ..	157	323	210	120	61	43	30	I	2	790
76. Congenital Debility (38) ..	158	63	38	21	15	13	7	..	..	157
77. Premature Birth (38) ..	159	607	419	263	104	116	69	I	3	1,582
78. Injury at Birth (38) ..	160	221	119	108	49	33	18	..	..	548
79. Other Diseases peculiar to the First Year of Life (38) ..	161	187	140	63	45	35	14	..	3	487
80. Senility (30) ..	162	988	623	344	274	179	83	I	I	2,493
81. Suicide (40) ..	163, 164	238	122	72	48	42	17	I	..	540
82. Homicide (41) ..	165-168	51	21	17	7	4	5	I	..	106
83. Automobile Accidents (42) ..	170	270	217	126	49	66	21	I	I	751
84. Other Violent or Accidental Deaths (43) ..	169	948	563	410	227	184	93	7	4	2,436
85. Deaths due to Operations of War (43) ..	171-195	..	..	..	..	I	..	..	..	I
86. Legal Executions (43) ..	196-197	..	..	..	I	..	..	..	..	I
87. Ill-defined or Unspecified (44) ..	198	..	..	..	..	..	..	..	..	..
87. Ill-defined or Unspecified (44) ..	199, 200	72	47	28	72	I	2	I	I	224
Total ..	..	26,652	20,502	9,385	5,984	4,478	2,494	31	70	69,596

* No 60:—115, 116, 118, 123, 128, 129.

D.—CAUSES OF DEATH : PERSONS, AUSTRALIA.

ABRIDGED CLASSIFICATION.

Abridged Classification.	General Classification Numbers.	1940.	1941.	1942.	1943.	1944.	1944— Rate per 1,000,000 Population.
1. Typhoid and Paratyphoid Fevers	1, 2	28	15	26	46	18	2
2. Plague	3	..	..	..	..	..	..
3. Scarlet Fever	8	34	25	22	52	27	4
4. Whooping Cough	9	265	231	187	203	61	8
5. Diphtheria	10	185	305	240	277	181	25
6. Tuberculosis of the Respiratory System ..	13	2,339	2,490	2,564	2,272	2,165	296
7a. Tubercular Meningitis	14 (a)	79	64	76	82	64	9
7b. Other Tuberculous Diseases	14b-22	155	180	178	186	158	22
8. Malaria	28	7	5	14	21	8	1
9. Syphilis	30	522	430	400	444	398	54
10a. Influenza—Pneumonic	33 (a)	238	198	355	249	72	10
10b. Influenza—Other	33 (b)	116	147	201	192	108	15
11. Small-pox	34	..	..	..	..	..	..
12. Measles	35	126	19	245	107	11	2
13. Typhus Fever	39	7	7	6	12	11	2
14. Other Infective and Parasitic Diseases ..	*	530	725	892	742	544	74
15. Cancer and other Malignant Tumours ..	45-55	8,214	8,478	8,491	8,870	8,571	1,173
16. Non-malignant Tumours or Tumours of Un- determined Nature	56, 57	453	417	397	456	461	63
17. Chronic Rheumatism and Gout	59, 60	185	158	188	163	143	20
18. Diabetes Mellitus	61	1,274	1,386	1,444	1,504	1,294	177
19. Chronic or Acute Alcoholism	77	86	95	88	67	75	10
20. Other General Diseases	*	1,144	1,112	1,054	1,065	1,047	143
21. Non-meningococcal Meningitis and diseases of the Spinal Cord	81, 82	375	389	438	421	375	51
22. Intra-cranial Lesions of Vascular Origin ..	83	5,785	6,277	6,750	6,721	6,755	925
23. Other Diseases of Nervous System and Sense Organs	80, 84-89	791	799	862	914	807	110
24. Diseases of the Heart	90-95	17,455	19,085	21,002	21,237	20,411	2,794
25. Other Diseases of the Circulatory System ..	96-103	1,913	1,782	2,022	1,974	1,958	268
26a. Acute Bronchitis	106 (a)(c)	189	201	216	178	150	21
26b. Chronic Bronchitis	106 (b)(d)	524	550	556	545	464	64
27. Pneumonia and Broncho-pneumonia	107-109	3,988	4,148	4,473	4,270	3,596	492
28. Other Diseases of the Respiratory System ..	*	1,046	1,068	1,069	950	966	132
29a. Diarrhoea and Enteritis (under two years of age)	119	397	390	441	395	292	40
29b. Diarrhoea and Enteritis (two years and over)	120	308	291	359	370	251	34
30. Appendicitis	121	450	447	448	384	380	52
31a. Cirrhosis of the Liver	124	301	331	298	297	256	35
31b. Other Diseases of the Liver and Biliary Calculi	125-127	480	450	447	483	433	59
32a. Hernia, Intestinal Obstruction	122	583	601	645	641	706	97
32b. Other Diseases of the Digestive System ..	*	970	1,077	1,035	1,019	959	131
33. Nephritis	130-132	3,865	3,883	3,893	3,913	3,495	478
34. Other Diseases of the Genito-Urinary System ..	133-139	1,221	1,331	1,351	1,269	1,143	156
35a. Post-abortive Sepsis	140	142	106	99	114	81	11
35b. Puerperal Infection	147	95	91	90	94	68	9
36. Other Diseases of Pregnancy, Child-birth and the Puerperium	141-146, 148-150 151-156	278	293	302	289	288	39
37. Diseases of the Skin, Bones, etc.	157-161	3,368	3,803	3,604	3,732	3,564	488
38. Congenital Debility, Malformations, Prema- ture Birth, etc.	162	2,541	2,486	2,899	2,888	2,493	341
39. Senility	163, 164	743	624	594	516	540	74
40. Suicide	165-168	99	67	95	75	106	15
41. Homicide	170	1,457	1,155	961	763	751	103
42. Automobile Accidents	169,	2,501	2,568	2,651	2,522	2,438	334
43. Other Accidental or Violent Deaths	171-198 199, 200	238	228	282	255	224	31
44. Unstated or Ill-defined Causes .. ..	..	..	..	..	..	..	..
Total .. ..	..	68,384	71,176	75,191	74,486	69,596	9,525

* No. 14:—4-7, 11, 12, 23-27, 29, 31, 32, 36-38, 40-44; No. 20:—58, 62-76, 78, 79; No. 28:—104, 105, 110-111; No. 31:—115-118, 123, 128, 129.

NOTE.—All causes of death have been classified in accordance with the 1938 revision of the International List.

E.—CAUSES OF DEATH : PERSONS, AUSTRALIA, NUMBER AND RATES.

ABRIDGED CLASSIFICATION.

Abridged Classification.	General Classification Numbers.	Number of Deaths.			Average Rate per 1,000,000 of Population.		
		1921-25.	1931-35.	1936-40.	1921-25.	1931-35.	1936-40
1. Typhoid and Paratyphoid Fevers ..	1, 2	1,209	379	231	42	12	7
2. Plague ..	3	72	..	..	3	..	..
3. Scarlet Fever ..	8	235	331	180	8	10	5
4. Whooping Cough ..	9	1,612	1,186	927	57	36	27
5. Diphtheria ..	10	2,565	2,083	1,605	90	63	47
6. Tuberculosis of the Respiratory System ..	13	15,321	11,221	12,191	538	400	354
7a. Tubercular Meningitis ..	14 (a)	876	618	453	31	19	13
7b. Other Tuberculous Diseases ..	14 (b)-22	1,404	1,016	883	49	31	26
8. Malaria ..	28	150	97	58	5	3	2
9. Syphilis ..	30	1,750	1,600	1,828	61	48	53
10a. Influenza—Pneumonic ..	33 (a)	1,808	2,859	1,913	64	86	55
10b. Influenza—Other ..	33 (b)	1,344	1,326	819	47	40	24
11. Small-pox ..	34	4	1	1	..	..	..
12. Measles ..	35	582	391	390	20	12	11
13. Typhus Fever ..	39	4	15	30	..	1	1
14. Other Infective and Parasitic Diseases ..	*	3,063	2,649	2,577	108	80	75
15. Cancer and other Malignant Tumours ..	45-55	25,794	34,825	39,477	906	1,053	1,145
16. Non-malignant Tumours or Tumours of Undetermined Nature ..	56, 57	633	1,817	2,188	22	55	63
17. Chronic Rheumatism and Gout ..	59, 60	862	847	845	30	26	24
18. Diabetes Mellitus ..	61	3,355	5,095	5,953	118	154	173
19. Chronic or Acute Alcoholism ..	77	763	235	331	27	7	10
20. Other General Diseases ..	*	5,335	5,437	5,793	186	164	168
21. Non-meningococcal Meningitis and Diseases of the Spinal Cord ..	81, 82	2,787	1,371	1,773	98	42	51
22. Intra-cranial Lesions of Vascular Origin ..	83	13,637	22,395	26,138	479	676	758
23. Other Diseases of Nervous System and Sense Organs ..	80, 84-89	7,536	4,600	4,127	265	139	120
24. Diseases of the Heart ..	90-95	31,588	60,227	78,670	1,109	1,817	2,282
25. Other Diseases of the Circulatory System ..	96-103	7,191	7,380	10,182	253	223	295
26a. Acute Bronchitis ..	106(a)(c)	1,580	1,078	921	56	33	27
26b. Chronic Bronchitis ..	106(b)(d)	4,053	2,966	2,662	142	90	77
27. Pneumonia and Broncho-pneumonia ..	107-109	18,400	20,157	21,125	646	608	613
28. Other Diseases of the Respiratory System ..	*	5,781	5,045	5,021	203	152	146
29a. Diarrhoea and Enteritis (under two years of age) ..	119	9,866	2,043	1,855	346	62	54
29b. Diarrhoea and Enteritis (two years and over) ..	120	3,144	1,922	1,598	110	58	46
30. Appendicitis ..	121	2,035	2,680	2,641	71	81	77
31a. Cirrhosis of the Liver ..	124	1,531	1,321	1,501	54	40	44
31b. Other Diseases of the Liver and Biliary Calculi ..	125-127	1,706	2,326	2,388	63	70	69
32a. Hernia, Intestinal Obstruction ..	122	2,648	2,792	3,911	93	84	81
32b. Other Diseases of the Digestive System ..	*	4,053	4,104	4,806	142	133	142
33. Nephritis ..	130-132	12,803	17,754	19,206	450	536	557
34. Other Diseases of the Genito-Urinary System ..	133-139	4,140	5,388	6,050	116	103	176
35a. Post-abortive Sepsis ..	140	(a)	761	763	(a)	23	22
35b. Puerperal Infection ..	147	1,138	466	393	40	14	11
36. Other Diseases of Pregnancy, Child-birth and the Puerperium ..	141-146, 148-150	2,321	1,833	1,671	82	56	48
37. Diseases of the Skin, Bones, etc. ..	151-156	1,556	1,696	1,669	55	51	48
38. Congenital Debility, Malformation, Premature Birth, etc. ..	157-161	21,511	15,909	16,498	755	481	478
39. Senility ..	162	20,429	14,021	13,757	717	424	399
40. Suicide ..	163, 164	3,106	3,988	3,780	109	121	110
41. Homicide ..	165-168	430	530	459	15	16	13
42. Automobile Accidents ..	170	(b)	4,372	6,862	(b)	132	199
43. Other Accidental or Violent Deaths ..	169, 171-198	13,875	11,267	12,998	487	340	377
44. Unstated or ill-defined Causes ..	199, 200	3,460	1,542	1,224	122	46	35
Total ..	..	271,171	298,262	332,410	9,522	9,011	9,641

* No. 14:—4-7, 11, 12, 23-27, 29, 31, 32, 36-38, 40-44; No. 20:—58, 62-76, 78, 79; No. 28:—104, 105, 110-114; No. 32b:—115-118, 123, 128, 129. (a) Not available, included in 35b and 36. (b) Not available, included in 43.

NOTE.—All causes of death have been classified in accordance with the 1938 revision of the International List.

16. *Deaths from Principal Specific Causes.*—(i) *General.* In the preceding tables particulars have been given for each of the causes of death comprising the Intermediate and the Abridged Classifications. The more important of these causes are treated in detail hereunder. The Intermediate Classification number is indicated in parenthesis for each cause or group of causes.

(ii) *Tuberculosis of the Respiratory System (6).* Of the various forms of tuberculosis prevalent in Australia, phthisis, or tuberculosis of the lungs, has attracted the most attention. The close relation, however, between tuberculosis of the lungs and of other parts of the respiratory system renders it desirable that all forms of tuberculosis of the respiratory system should be brought under one head for investigations concerning the age incidence and duration of this disease.

The decline in the toll levied by this disease on the community is plainly disclosed by the table on p. 556, which shows how both the number of deaths and the death-rate have declined since the period 1921–25.

During 1944 there were 2,165 deaths (1,430 males and 735 females) from tuberculosis of the respiratory system, compared with the average of 2,425 for the preceding five years. The deaths in 1944 represented a rate of 296 per million persons living.

(iii) *Tuberculosis of the Meninges and Central Nervous System (7a).* The number of deaths ascribed to this cause in 1944 was 64, which is below the average of 77 for the preceding five years.

(iv) *Other Forms of Tuberculosis (7b).* The 158 deaths in 1944 comprised the following:—Tuberculosis of intestines and peritoneum 23; vertebral column, 40; other bones and joints, 8; lymphatic system, 2; genito-urinary system, 19; other organs, 2; and disseminated tuberculosis—acute 59, chronic 3, and unspecified 2.

(v) *All Forms of Tuberculosis (6, 7).*—(a) *General.* The total number of deaths in 1944 was 2,387, consisting of 1,547 males and 840 females.

(b) *Age at Death.* The following table shows the age-groups of males, females and persons who died from this disease in 1944, together with comparable figures for 1921, 1931 and 1941.

TUBERCULOSIS (ALL FORMS): DEATHS IN AGE-GROUPS, AUSTRALIA.

Age-group (Years).	1921.			1931.			1941.			1944		
	Males.	Fe- males.	Per- sons.	Males.	Fe- males.	Per- sons.	Males.	Fe- males.	Per- sons.	Males.	Fe- males.	Per- sons.
Under 5 ..	90	76	166	57	47	104	42	28	70	44	29	73
5–9 ..	30	28	58	14	14	28	12	10	22	9	12	21
10–14 ..	23	24	47	19	20	39	9	16	25	7	11	18
15–19 ..	72	100	172	45	105	150	30	52	82	18	34	52
20–24 ..	173	194	367	113	183	296	69	91	160	60	112	172
25–29 ..	232	246	478	136	199	335	63	132	195	67	112	179
30–34 ..	237	195	432	191	164	355	125	129	254	91	103	194
35–39 ..	247	178	425	187	156	343	144	111	255	103	82	185
40–44 ..	234	141	375	207	102	309	159	79	238	131	76	207
45–49 ..	223	102	325	197	83	280	180	76	256	156	62	218
50–54 ..	179	69	248	185	62	247	216	64	280	204	40	244
55–59 ..	172	65	237	164	57	221	210	52	262	191	43	234
60–64 ..	118	42	160	128	50	178	187	59	246	177	45	222
65–69 ..	79	32	111	110	38	148	137	39	176	151	41	192
70–74 ..	35	10	45	52	31	83	74	41	115	81	16	97
75–79 ..	18	7	25	27	16	43	48	18	66	36	18	54
80 and over ..	6	7	13	4	4	8	20	12	32	21	4	25
Unspecified ..	3		3									
Total ..	2,171	1,516	3,687	1,836	1,331	3,167	1,725	1,009	2,734	1,547	840	2,387

(c) *Occupation at Death, Males.* A summary of the main groups of occupations of males who died from tuberculosis during 1921, 1931, 1941, 1942, 1943 and 1944, together with the percentage of each group on the total deaths from this disease is given in the following table.

**OCCUPATION OF MALES WHO DIED FROM TUBERCULOSIS
(ALL FORMS) : AUSTRALIA.**

Occupation Group.	Number of Male Deaths.					
	1921.	1931.	1941.	1942.	1943.	1944.
Agricultural, Pastoral, Mining, etc.	404	303	259	253	240	217
Industrial	784	694	356	340	354	349
Transport and Communication	165	170	151	107	180	138
Commercial	292	270	163	169	147	141
Professional	167	107	(b) 204	(b) 188	(b) 223	(b) 167
Personal Service	95	64	64	56	68	58
Indefinite (a)	264	228	(c) 528	(c) 502	(c) 556	(c) 477
Total	2,171	1,836	1,725	1,615	1,768	1,547

Occupation Group.	Percentage of Total.					
	1921.	1931.	1941.	1942.	1943.	1944.
	%	%	%	%	%	%
Agricultural, Pastoral, Mining, etc.	18.61	16.50	15.02	15.67	13.58	14.03
Industrial	36.11	37.80	20.64	21.05	20.02	22.56
Transport and Communication	7.60	9.26	8.75	6.63	10.18	8.92
Commercial	13.45	14.71	9.45	10.46	8.31	9.11
Professional	7.69	5.83	b 11.82	b 11.64	b 12.61	b 10.80
Personal Service	4.38	3.48	3.71	3.47	3.85	3.75
Indefinite (a)	12.16	12.42	c 30.61	c 31.08	c 31.45	c 30.83
Total	100.00	100.00	100.00	100.00	100.00	100.00

(a) Includes dependent and unoccupied males. (b) Includes clerks, etc. not specified as belonging to any industry, formerly included under "Commercial". (c) Includes labourers not specified as belonging to any industry, formerly included under "Industrial".

(d) *Length of Residence in Australia.* The length of residence in Australia of persons who died from tuberculosis in 1944 is given in the next table. Corresponding figures for 1942 and 1943 may be obtained from *Demography Bulletin* Nos. 60 and 61, respectively.

LENGTH OF RESIDENCE IN AUSTRALIA OF PERSONS WHO DIED FROM TUBERCULOSIS (ALL FORMS), 1944.

Length of Residence in Australia.	Male.	Fem.	Total.	Length of Residence in Australia.	Male.	Fem.	Total.
Born in Australia ..	1,190	760	1,950	Resident 10-14 years ..	9	7	16
Resident under 1 year ..	1	..	1	" 15-19 " ..	40	12	52
" 1 year ..	2	..	2	" 20 years & over ..	209	43	252
" 2 years ..	6	..	6	Length of residence not stated	72	11	83
" 3 " ..	1	..	1				
" 4 " ..	..	1	1				
" 5-9 years ..	17	6	23	Total Deaths ..	1,547	840	2,387

(e) *Death-rates.* In order to show the relative incidence of tuberculosis in each State and Territory and the improvement which has taken place in recent years the death-rates from tubercular diseases for 1931, 1941 and 1944 are given in the following table. Corresponding figures for 1942 and 1943 may be obtained from *Demography Bulletin* Nos. 60 and 61, respectively.

TUBERCULOSIS (ALL FORMS) : DEATH-RATES (a).

State or Territory.	1931.			1941.			1944.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
New South Wales	53	37	45	47	24	36	41	22	31
Victoria ..	59	51	55	54	37	45	47	29	38
Queensland ..	45	28	37	39	21	30	39	16	28
South Australia..	58	56	57	40	34	37	38	23	30
Western Australia	74	40	58	62	25	44	44	16	31
Tasmania ..	61	51	56	48	44	46	44	40	42
Northern Territory	69	..	44	27	36	30	25	..	19
Australian Capital Territory ..	21	25	23	..	17	8	42	..	21
Australia ..	55	42	49	48	29	39	42	23	33

(a) Number of deaths from tuberculosis per 100,000 of mean population.

(f) *Proportion of Total Deaths.* The following table shows the number of deaths from tuberculosis per 10,000 deaths from all causes in each State and Territory during 1931, 1941 and 1944. Corresponding figures for 1942 and 1943 may be obtained from *Demography Bulletin* Nos. 60 and 61, respectively.

TUBERCULOSIS (ALL FORMS) : PROPORTION PER 10,000 TOTAL DEATHS.

State or Territory.	1931.			1941.			1944.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
New South Wales	563	483	528	436	280	367	402	257	336
Victoria ..	572	589	580	478	369	427	435	294	367
Queensland ..	504	417	469	382	257	329	393	203	313
South Australia	663	698	679	353	353	353	369	252	314
Western Australia	707	590	666	519	303	434	417	209	333
Tasmania ..	604	581	593	425	429	427	412	423	417
Northern Territory	323	..	286	211	370	246	400	..	323
Australian Capital Territory ..	455	714	556	..	385	143	667	..	429
Australia ..	577	537	560	438	318	384	409	264	343

(g) *Death-rates, Various Countries.* The following table shows the death-rates from tuberculosis for Australia and each State in comparison with the rates for various other countries. Figures for years later than 1939 are not given as they are based on population estimates whose comparability is open to doubt because of the abnormal distribution of population during war-time. The table indicates that Australia occupies a very favourable position as regards the death-rate from this disease.

TUBERCULOSIS : DEATH-RATES(a), VARIOUS COUNTRIES.

Country.	Year.	Respiratory System.	All Forms.	Country.	Year.	Respiratory System.	All Forms.
Queensland ..	1939	29	30	Scotland ..	1939	54	70
Union of South Africa (Europeans)	1939	27	33	Belgium ..	1936	56	72
New South Wales ..	1939	31	37	Germany ..	1935	62	73
South Australia ..	1939	35	38	Italy ..	1938	59	80
Australia ..	1939	35	39	Northern Ireland ..	1939	66	84
New Zealand ..	1939	34	40	Switzerland ..	1939	73	95
Western Australia ..	1939	39	41	Norway ..	1937	78	98
Victoria ..	1939	40	45	Sweden ..	1939	85	103
U.S. of America ..	1939	43	47	Spain ..	1935	(b)	107
Denmark ..	1936	37	47	Eire ..	1939	89	113
Netherlands ..	1936	36	50	France ..	1934	109	126
Tasmania ..	1939	43	53	Greece ..	1936	104	128
Canada ..	1939	44	53	Czechoslovakia ..	1936	114	129
Egypt ..	1936	45	56	Japan ..	1936	105	142
Ceylon ..	1937	55	(b)	Portugal ..	1939	119	144
England and Wales	1938	53	64	Hungary ..	1939	127	152
Great Britain and Northern Ireland	1938	53	64	Poland (c) ..	1937	135	153
				Finland ..	1937	179	210

(a) Number of deaths per 100,000 of mean population, with over 100,000 inhabitants.

(b) Not available.

(c) In towns

(vi) *Cancer and other Malignant Tumours* (18 to 23).—(a) *General*. The number of deaths from cancer increased continuously to 6,256 in 1929, declined slightly to 6,120 in 1930, but rose again progressively to 8,571 in 1944. Of the deaths registered during 1944, 4,164 were of males, namely, 1,505 in New South Wales, 1,268 in Victoria, 574 in Queensland, 347 in South Australia, 335 in Western Australia, 129 in Tasmania, nil in Northern Territory, and 6 in the Australian Capital Territory; while 4,407 were of females, namely, 1,676 in New South Wales, 1,391 in Victoria, 520 in Queensland, 441 in South Australia, 231 in Western Australia, 141 in Tasmania, nil in Northern Territory, and 7 in the Australian Capital Territory.

(b) *Type and Seat of Disease*. Tables showing the type and seat of disease, in conjunction with age and with conjugal condition of the persons dying from cancer in 1942, 1943 and 1944, will be found in *Demography Bulletin*, Nos. 60-62. A summary regarding type and seat of disease for 1944 is given below. It may be pointed out that the significance of the number of deaths shown for the various types of cancer enumerated hereunder is doubtful, owing to the fact that, in the absence of a post-mortem, it is impracticable for the certifying doctor in the majority of cases to make an accurate diagnosis as to type in the detail required for the following classification.

DEATHS FROM CANCER : TYPE AND SEAT OF DISEASE, AUSTRALIA, 1944.

Type of Disease.	Males.	Fem.	Persons.	Seat of Disease.	Males.	Fem.	Persons.
Cancer	291	342	633	Buccal Cavity and Pharynx ..	231	70	301
Carcinoma—				Digestive Organs and Peritoneum—			
Carcinoma Simplex	3,276	3,514	6,790	Stomach and Duodenum ..	1,095	674	1,769
Epithelioma ..	113	58	171	Rectum and Anus ..	257	180	437
Scirrhus .. ..	..	19	19	Colon	317	379	696
Rodent Ulcer ..	26	16	42	Other	727	679	1,406
Adeno-Carcinoma	25	30	55	Respiratory System	386	104	490
Colloid Carcinoma	1	1	2	Uterus .. ..	..	644	644
Sarcoma—				Other Female Genital Organs ..	..	248	248
Sarcoma	155	138	293	Breast	5	879	884
Myeloma	4	3	7	Male Genital Organs	475	..	475
Glioma	13	10	23	Urinary Organs ..	197	121	318
Endothelioma ..	1	2	3	Skin	170	105	275
Melanoma—				Brain and Nervous System ..	25	21	46
Melanotic Sarcoma	34	43	77	Other or Unspecified Organs ..	279	303	582
Melano-Carcinoma	1	2	3				
Embryonic Tumours—							
Hypernephroma ..	13	14	27				
Teratoma	6	1	7				
Malignant Disease..	166	165	331				
Malignant Tumour	39	49	88				
Total Deaths	4,164	4,407	8,571	Total Deaths	4,164	4,407	8,571

(c) *Age at Death*. The ages of persons who died from cancer in 1921, 1931, 1941 and 1944 are given below. Inferences drawn from the great increase in the number of deaths from cancer in 1944 compared with 1921, need qualification in view of the altered age constitution of the population since the earlier year. The number of people reaching the older ages at which cancer risks are greatest has more than doubled in the last twenty years, and it is only in the extreme old age-groups from 75 onwards that the rate of mortality has definitely increased. For groups up to age 75 there has been no increase in mortality rates since 1921. In the higher age-groups the increase in the rate for females has been relatively greater than that in the rate for males. It is also probable that a proportion of the increased number of deaths from cancer recorded in recent years has been due to more correct diagnosis and certification on the part of medical practitioners rather than to any actual increase in the disease itself.

CANCER : DEATHS IN AGE-GROUPS, AUSTRALIA.

Age-group. (Years.)	1921.			1931.			1941.			1944.		
	Males.	Fe- males.	Per- sons.	Males.	Fe- males.	Per- sons.	Males.	Fe- males.	Per- sons.	Males.	Fe- males.	Per- sons.
Under 15 ..	26	23	49	25	23	48	21	25	46	26	26	52
15-19 ..	8	11	19	12	11	23	10	10	20	13	13	26
20-24 ..	6	7	13	12	14	26	15	13	28	8	10	18
25-29 ..	15	19	34	19	13	32	24	22	46	20	18	38
30-34 ..	26	45	71	26	55	81	28	45	73	35	57	92
35-39 ..	56	81	137	59	98	157	56	106	162	40	110	150
40-44 ..	81	140	221	113	173	284	92	193	285	82	178	260
45-49 ..	147	207	354	149	261	410	149	282	431	142	275	417
50-54 ..	240	263	503	261	287	548	316	403	719	279	400	679
55-59 ..	358	308	666	349	344	693	423	435	858	424	527	951
60-64 ..	442	349	791	519	400	919	558	491	1,049	623	593	1,216
65-69 ..	380	285	665	662	478	1,140	670	558	1,228	656	585	1,241
70-74 ..	312	234	546	609	410	1,019	753	623	1,376	711	610	1,321
75-79 ..	212	215	427	397	294	691	676	512	1,188	622	522	1,144
80-84 ..	83	89	172	187	152	339	331	330	661	325	333	658
85 and over ..	45	52	97	87	92	179	131	175	306	158	150	308
Unspecified ..	3	..	3	..	..	..	..	..	..	..	..	..
Total ..	2,440	2,328	4,768	3,484	3,105	6,589	4,255	4,223	8,478	4,164	4,407	8,571

(d) *Occupation at Death, Males.* In the following table males who died from cancer during 1921, 1931, 1941, 1942, 1943 and 1944 are classified according to main groups of occupations, and the percentage of each group on the total deaths from this disease is given.

OCCUPATION OF MALES WHO DIED FROM CANCER : AUSTRALIA.

Occupation Group.	Number of Male Deaths.					
	1921.	1931.	1941.	1942.	1943.	1944.
Agricultural, Pastoral, Mining, etc. ..	639	843	956	994	997	961
Industrial ..	940	1,346	941	952	913	913
Transport and Communication ..	212	295	351	356	310	351
Commercial ..	275	446	455	451	477	439
Professional ..	133	188	(b) 432	(b) 432	(b) 478	(b) 450
Personal Service ..	76	97	113	110	113	127
Indefinite (a) ..	165	269	(c) 1,007	(c) 1,025	(c) 1,044	(c) 923
Total ..	2,440	3,484	4,255	4,320	4,332	4,164

Occupation Group.	Percentage of Total.					
	1921.	1931.	1941.	1942.	1943.	1944.
Agricultural, Pastoral, Mining, etc. ..	% 26.19	% 24.20	% 22.47	% 23.01	% 23.01	% 23.08
Industrial ..	38.52	38.63	22.11	22.04	21.08	21.93
Transport and Communication ..	8.69	8.47	8.25	8.24	7.16	8.43
Commercial ..	11.27	12.80	10.69	10.44	11.01	10.54
Professional ..	5.45	5.40	(b) 10.15	(b) 10.00	(b) 11.03	(b) 10.81
Personal Service ..	3.11	2.78	2.66	2.55	2.61	3.05
Indefinite (a) ..	6.77	7.72	(c) 23.67	(c) 23.72	(c) 24.10	(c) 22.16
Total ..	100.00	100.00	100.00	100.00	100.00	100.00

(a) Includes dependent and unoccupied males. (b) Includes clerks, etc., not specified as belonging to any industry, formerly included under "Commercial". (c) Includes labourers not specified as belonging to any industry, formerly included under "Industrial".

(e) *Death-rates.* The following table shows the death-rates per 100,000 of mean population from cancer in each State for 1931, 1941 and 1944. The substantial increase in the death-rate since 1931 is reflected in both sexes and in all States. Corresponding figures for 1942 and 1943 may be obtained from *Demography Bulletin* Nos. 60 and 61.

CANCER : DEATH-RATES.(a)

State or Territory.	1931.			1941.			1944.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
New South Wales	99	95	97	116	108	112	105	117	111
Victoria ..	111	106	109	131	145	138	128	138	133
Queensland ..	105	77	92	100	97	99	104	101	103
South Australia..	112	124	118	112	140	126	113	141	127
Western Australia	110	81	97	138	111	125	133	99	117
Tasmania ..	100	100	100	126	128	127	104	116	110
Northern Territory	69	119	87	54	36	49	..	..	..
Australian Capital Territory ..	21	51	35	28	67	46	84	96	90
Australia ..	105	97	101	119	120	119	114	121	117

(a) Number of deaths from cancer per 100,000 of mean population.

(f) *Proportion of Total Deaths.* While the death-rate from all causes has diminished substantially in recent years, the rate from cancer has risen almost continuously, the result being that out of 10,000 deaths from all causes, 1,232 were due to cancer in 1944, compared with 1,165 per 10,000 total deaths in 1931. The following table shows the proportions recorded in each State and Territory for 1931, 1941 and 1944. Corresponding figures for 1942 and 1943 may be obtained from *Demography Bulletin* Nos. 60 and 61 respectively.

CANCER : PROPORTION PER 10,000 TOTAL DEATHS.

State or Territory.	1931.			1941.			1944.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
New South Wales	1,064	1,249	1,146	1,070	1,240	1,145	1,038	1,379	1,194
Victoria ..	1,076	1,229	1,147	1,160	1,463	1,303	1,191	1,411	1,297
Queensland ..	1,173	1,150	1,164	974	1,212	1,073	1,054	1,320	1,166
South Australia..	1,281	1,560	1,410	986	1,464	1,205	1,095	1,566	1,317
Western Australia	1,048	1,211	1,106	1,160	1,324	1,225	1,258	1,273	1,264
Tasmania ..	997	1,151	1,070	1,114	1,247	1,177	966	1,217	1,083
Northern Territory	323	2,500	571	421	370	410	..	..	..
Australian Capital Territory ..	455	1,429	833	455	1,538	857	1,333	2,800	1,857
Australia..	1,096	1,254	1,165	1,080	1,329	1,191	1,101	1,387	1,232

(g) *Death-rates, Various Countries.* The following table shows the death-rates from cancer for Australia and each State in comparison with the rates for various other

countries. Figures for years later than 1939 are not given as they are based on population estimates whose comparability is open to doubt because of the abnormal distribution of population during war-time.

CANCER : DEATH-RATES^(a), VARIOUS COUNTRIES.

Country.	Year.	Rate.	Country.	Year.	Rate.
Ceylon	1937	10	Australia ..	1939	116
Egypt	1936	26	South Australia ..	1939	118
Portugal	1939	47	New Zealand ..	1939	118
Japan	1936	48	U.S. of America ..	1939	122
Greece	1936	50	Czechoslovakia ..	1936	126
Spain	1935	68	Eire	1939	127
Italy	1938	86	Norway	1937	131
France	1934	96	Netherlands ..	1936	131
Hungary	1939	96	Victoria	1939	133
Queensland ..	1939	100	Sweden	1937	133
Finland	1936	100	Northern Ireland ..	1939	133
Poland ^(b)	1936	104	Germany	1935	145
Western Australia ..	1939	105	Denmark	1936	151
Union of South Africa (Europeans) ..	1939	105	Switzerland ..	1939	157
Belgium	1936	110	Scotland	1939	161
Canada	1939	110	Great Britain and Northern Ireland ..	1938	172
New South Wales ..	1939	113	England and Wales ..	1938	173
Tasmania	1939	114			

(a) Number of deaths per 100,000 of mean population.

(b) In towns with over 100,000 inhabitants.

(h) *Comparison with Tuberculosis.* In recent years the death-rate from tuberculosis has shown a tendency to decrease, while that from cancer has displayed an almost continuous increase. The table hereunder shows that for each of the periods under review the decline in the death-rate from tuberculosis has been accompanied by an almost equal increase in the rate for cancer. Thus in the forty years comprised in the five-yearly averages shown below the death-rate for tuberculosis declined by 50 while the rate for cancer increased by 52 per 100,000 persons. This equal but opposite tendency may be demonstrated by stating that the death-rate from tuberculosis and cancer combined remained almost constant in each period, the figures being:—1901-05, 152 deaths per 100,000 persons; 1906-10, 145; 1911-15, 152; 1916-20, 154; 1921-25, 153; 1926-30, 152; 1931-35, 150; 1936-40, 154; and 1944, 150.

TUBERCULOSIS AND CANCER : DEATH-RATES^(a), AUSTRALIA.

Period.	Death-rate from Tuberculosis.			Death-rate from Cancer.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
1901-05 ..	100	77	89	64	61	63
1906-10 ..	81	69	75	71	70	70
1911-15 ..	84	69	77	75	74	75
1916-20 ..	84	59	71	86	80	83
1921-25 ..	71	52	62	93	88	91
1926-30 ..	64	49	57	97	94	95
1931-35 ..	52	37	45	108	102	105
1936-40 ..	47	31	39	116	113	115
1944	42	23	33	114	121	117

(a) Number of deaths per 100,000 of mean population.

(vii) *Diseases of the Heart* (42 to 46). The number of deaths in 1944 was 20,411, namely, 11,688 males and 8,723 females. Of these deaths, 35 were attributed to pericarditis, 99 to acute bacterial endocarditis, 17 to other acute endocarditis, 238 to aortic valve disease, 625 to mitral valve disease, 88 to diseases of other and unspecified valves and chronic endocarditis specified as rheumatic, 475 to other valvular disease, 111 to endocarditis not returned as acute or chronic, 136 to acute myocarditis, 230 to chronic rheumatic myocarditis, 10,254 to other myocardial degeneration, 1,570 to myocarditis not specified as acute or chronic, 5,084 to diseases of coronary arteries, 246 to angina pectoris with record of coronary disease, 187 to angina pectoris without mention of coronary disease, 290 to functional heart disease without mention of organic lesion, 92 to other diseases of the heart specified as rheumatic, and 634 to other and unspecified diseases of the heart. The sex and territorial distribution of the deaths will be found in the table below. This class is the largest among causes of death, the death-rate having grown from 1,019 per million in 1911-15 to 2,705 in 1939-43 and 2,933 in 1944. The increase in the number of deaths recorded from heart diseases has been particularly pronounced during the past fourteen years. The rapid increase in mortality is partly a reflection of the ageing of the population, but the figures have been influenced mainly by improved diagnosis and certification by medical practitioners. Many deaths of elderly people, formerly attributed to senility or other indefinite causes, are believed to be now more frequently certified as associated with some form of heart disease, usually myocardial degeneration. The improvement in diagnosis has been particularly evident in the case of diseases of the coronary arteries. As a result of a change of classification adopted in 1931, all forms of this disease have been included since that year among heart diseases. Although deaths recorded from diseases of the coronary arteries were not numerically important in 1931, this type of disease has since become prominent in medical science, and in 1944 the number of deaths assigned to this cause was 5,084, an increase of 4,520, or over 800 per cent., since 1931. The number of deaths, death-rates and proportions per 10,000 deaths in 1944 are given in the following table. Corresponding figures for 1942 and 1943 may be obtained from *Demography Bulletin*, Nos. 60 and 61 respectively.

**DISEASES OF THE HEART: DEATHS, DEATH-RATES AND PROPORTION
PER 10,000 TOTAL DEATHS, 1944.**

State or Territory.	Number of Deaths.			Death-rates.(a)			Proportion per 10,000 Total Deaths.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
New South Wales	4,836	3,557	8,393	336	248	292	3,337	2,926	3,149
Victoria ..	3,236	2,797	6,033	328	277	302	3,040	2,837	2,943
Queensland ..	1,642	1,019	2,661	299	198	250	3,016	2,586	2,835
South Australia	925	709	1,634	300	226	263	2,920	2,518	2,731
Western Australia	686	418	1,104	272	180	227	2,575	2,304	2,465
Tasmania ..	343	217	560	277	179	228	2,569	1,872	2,245
Northern Territory	4	1	5	99	89	97	1,000	1,667	1,613
Australian Capital Territory ..	16	5	21	224	69	145	3,556	2,000	3,000
Australia ..	11,688	8,723	20,411	319	240	279	3,090	2,745	2,933

(a) Number of deaths from diseases of the heart per 100,000 of mean population.

(viii) *Diarrhœa and Enteritis (Children under two years of age)* (54). The number of deaths due to these causes was 292 in 1944, which is a substantial decrease on the average of 410 for the previous five years. During 1944, 5,446 children died before reaching their second birthday, and of these 292 or 5.4 per cent., died from diarrhœa and enteritis. The ages of children dying from these diseases during the first year of life will be found on page 543.

The number of deaths under 2 years of age due to diarrhoea and enteritis, the death-rates, and proportions per 10,000 deaths for 1911-15, 1921-25, 1931-35, 1936-40, and 1944 are given in the following table. Corresponding figures for 1942 and 1943 may be obtained from *Demography Bulletin*, Nos. 60 and 61. Reference to the last four lines of the table will reveal the very satisfactory decrease in the number of deaths due to these diseases. In view of changed birth-rates, however, the death-rates per 100,000 of mean population are not true measures of changes in the force of mortality. A better measure would be the estimated number of children in every 1,000 born who died from these diseases before reaching their second birthday. The numbers are estimated to be as follows:—

Period—	1911-15	Males, 24.6	Females, 20.9	Total, 22.8
„	1921-25	„ 16.5	„ 13.3	„ 14.9
„	1931-35	„ 3.7	„ 2.8	„ 3.3
„	1936-40	„ 3.4	„ 2.7	„ 3.0

DIARRHOEA AND ENTERITIS (UNDER 2 YEARS OF AGE) : DEATHS, DEATH-RATES AND PROPORTION PER 10,000 TOTAL DEATHS.

State.	Number of Deaths.			Death-rates (a).			Proportion per 10,000 Total Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	62	29	91	4	2	3	43	24	34
Victoria ..	44	25	69	5	3	4	41	25	34
Queensland ..	37	24	61	7	5	6	68	61	65
South Australia ..	13	8	21	4	2	3	41	28	35
Western Australia	23	19	42	9	8	9	86	105	94
Tasmania ..	2	5	7	2	4	3	15	43	28
Northern Territory	..	..	..	..	..	..	..	..	..
Australian Capital Territory ..	..	1	1	..	14	7	..	400	143
Australia 1944 ..	181	111	292	5	3	4	48	35	42
Annual Average—									
1911-15 ..	1,687	1,354	3,041	68	59	64	569	627	593
1921-25 ..	1,114	859	1,973	38	31	35	362	366	364
1931-35 ..	234	175	409	7	5	6	70	68	69
1936-40 ..	212	159	371	6	5	5	57	54	56

(a) Number of deaths from these diseases per 100,000 of mean population.

(ix) *Puerperal Infection (including Post-abortive Infection (including Criminal Abortion) and Infection during Child-birth and the Puerperium)* (70, 71). Deaths during 1944 numbered 149, being made up as follows:—Post-abortive infection, 81 (including criminal abortion, 54), puerperal infections 26, puerperal thrombophlebitis 7, and puerperal embolism and sudden death, 35. Owing to the change in classification, figures for these particular causes prior to 1940 are not entirely on a comparable basis, as it is probable that some of the deaths classified with puerperal septicæmia in earlier years are now included in “other diseases of pregnancy”. The death-rate per 1,000 live births during 1944 was 0.97, while corresponding rates for preceding years were:—1940, 1.88; 1941, 1.47; 1942, 1.38; and 1943, 1.39.

(x) *Other Diseases or Accidents of Pregnancy and Labour* (68, 69, 72). The deaths under this heading numbered 278 in 1940; 293 in 1941; 302 in 1942; 289 in 1943, and 288 in 1944. Included in the 288 deaths in 1944 were the following:—Abortion without mention of septic conditions, 19; ectopic gestation, 32; hæmorrhage of pregnancy, 3;

toxæmias of pregnancy, 54 ; other diseases and accidents of pregnancy, 8 ; hæmorrhage of child-birth and the puerperium, 56 ; puerperal toxæmias, 65 ; other accidents of child-birth, 39 ; other or unspecified diseases of child-birth and the puerperium, 12.

(xi) *All Puerperal Causes* (68 to 72). The 437 deaths in 1944 under the preceding two headings, including criminal abortion, correspond to a death-rate of 11.7 per 100,000 females. The rate is also equivalent to 2.85 deaths per 1,000 live births. The death-rate may be expressed in other terms by stating that 1 of every 347 women giving birth to a live child in 1944 died from puerperal causes ; the corresponding ratios for married women were 1 of every 368, and for single women 1 in every 155. More detailed information will be found in a series of tables in *Demography Bulletin*, No. 62.

The following table shows the death-rate per 1,000 live births from puerperal causes in various countries. Care is needed in comparing the Australian rates with the figures for other countries. In the rates for the States and Australia deaths from criminal abortion have been excluded from puerperal infection but included with deaths from other puerperal causes and in the total. Definite information is not available as to the practice in other countries but it is very probable that the rates for many of the countries given hereunder totally exclude deaths from criminal abortion.

CHILD-BIRTH : DEATHS PER 1,000 LIVE BIRTHS, VARIOUS COUNTRIES.

Country.	Year.	Rates per 1,000 Live Births from—		
		Puerperal Infection.	Other Puerperal Causes.	All Puerperal Causes.
New Zealand	1943	1.05	1.16	2.21
Japan	1936	0.64	1.67	2.31
South Australia	1944	0.60	1.80	2.40
Italy	1938	0.83	1.60	2.43
Western Australia	1944	0.37	2.11	2.48
Union of South Africa (Europeans)	1941	0.84	1.65	2.49
France	1934	1.00	1.50	2.50
Victoria	1944	0.38	2.19	2.57
United States of America	1942	1.00	1.58	2.58
Canada	1943	0.92	1.89	2.81
Norway	1937	1.18	1.65	2.83
Australia	1944	0.62	2.23	2.85
England and Wales (a)	1938	0.86	2.11	2.97
Queensland	1944	0.53	2.49	3.02
Netherlands	1936	0.99	2.04	3.03
Sweden	1937	1.52	1.53	3.05
New South Wales	1944	0.82	2.30	3.12
Great Britain and Northern Ireland	1938	0.90	2.27	3.17
Tasmania	1944	1.15	2.12	3.27
Spain	1935	2.00	1.40	3.40
Switzerland	1939	1.02	2.65	3.67
Northern Ireland	1939	0.79	3.01	3.80
Hungary	1939	2.11	1.72	3.83
Denmark	1936	1.30	2.60	3.90
Eire	1938	0.81	3.30	4.11
Greece	1936	2.20	2.00	4.20
Scotland	1942	1.77	2.44	4.21
Portugal	1939	1.95	2.33	4.28
Belgium	1936	1.60	3.00	4.60
Germany	1935	1.99	2.86	4.85
Czechoslovakia	1936	2.88	2.03	4.91
Egypt (b)	1936	2.67	7.18	9.85

(a) Rate per 1,000 live and still-births.

(b) Localities having Health Bureaux.

A tabulation of puerperal causes for Australia according to age at death for married and single women separately will also be found in *Demography Bulletin*, No. 62.

The total number of children left by the 393 married mothers who died from puerperal causes in 1944 was 840, an average of 2.1 children per mother.

Seventeen of the mothers who died had been married less than one year, 54 between one and two years, and 39 between two and three years. The duration of marriage ranged up to 26 years, apart from 1 case in which the date of marriage was not stated. Tabulations distinguishing the ages at marriage and at death will be found in *Demography Bulletin*, No. 62, which also includes a table showing in combination the duration of marriage and previous issue.

(xii) *Congenital Malformation, Debility and Premature Birth* (75 to 79). The deaths under this heading in 1944 numbered 3,564 of which 3,429 were of children under one year of age. Of all deaths of children under one year of age 71 per cent. was due to these causes. The number of deaths for 1944 is given in the following table. Corresponding figures for 1942 and 1943 may be obtained from *Demography Bulletin*, Nos. 60 and 61 respectively.

DEATHS FROM CONGENITAL MALFORMATION, DEBILITY, ETC., 1944.

State or Territory.	Congenital Malformation.			Premature Birth and Injury at Birth.			Congenital Debility and other Diseases peculiar to the First Year of Life.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	177	146	323	475	353	828	149	101	250
Victoria ..	116	94	210	309	229	538	94	84	178
Queensland ..	65	55	120	221	150	371	46	38	84
South Australia ..	32	29	61	87	66	153	30	30	60
Western Australia	21	22	43	94	55	149	26	22	48
Tasmania ..	18	12	30	45	42	87	7	14	21
Northern Territory	1	..	1	..	1	1	..	..	..
Aust. Cap. Terr...	1	1	2	2	1	3	1	2	3
Australia ..	431	359	790	1,233	897	2,130	353	291	644
Number of deaths under one year	363	292	655	1,233	897	2,130	353	291	644
Number of deaths under one year per 1,000 births	4.63	3.89	4.27	15.74	11.96	13.89	4.51	3.88	4.20

(xiii) *Suicide* (81).—(a) *General*. The deaths from suicide rose each year from 533 in 1922 to 943 in 1930, but the number had declined to 754 in 1932. Since the latter year the deaths from this cause have fluctuated as follows:—1933, 790 deaths—633 males and 157 females; 1934, 826—643 males and 183 females; 1935, 791—612 males and 179 females; 1936, 789—611 males and 178 females; 1937, 721—573 males and 148 females; 1938, 746—574 males and 172 females; 1939, 781—602 males and 179 females; 1940, 743—568 males and 175 females; 1941, 624—463 males and 161 females; 1942, 594—432 males and 162 females; 1943, 516—376 males and 140 females; and 1944, 540—362 males and 178 females.

(b) *Modes Adopted.* The modes adopted by persons who committed suicide in 1942, 1943 and 1944 were as follows:—

SUICIDE : MODES ADOPTED, AUSTRALIA.

Mode of Death.	Males.			Females.			Persons.		
	1942.	1943.	1944.	1942.	1943.	1944.	1942.	1943.	1944.
Poisoning	57	52	51	60	41	53	117	93	104
Poisonous gas	45	37	42	25	23	48	70	60	90
Hanging or strangulation	71	71	72	22	27	20	93	98	92
Drowning	25	30	23	21	17	17	46	47	40
Firearms and explosives	134	106	105	12	13	14	146	119	119
Cutting or piercing instruments ..	68	57	42	13	8	12	81	65	54
Jumping from a high place	16	10	13	3	5	7	19	15	20
Crushing	14	10	12	4	5	3	18	15	13
Other modes	2	3	2	2	1	4	4	4	6
Total	432	376	362	162	140	178	594	516	540

(c) *Death-rates.* The death-rates from suicide and the proportion per 10,000 of total deaths are given in the following table for each year 1940 to 1944, corresponding rates for the periods 1911-15, 1921-25, 1931-35, and 1936-40, being shown at the foot of the table:—

SUICIDE : DEATHS, DEATH-RATES AND PROPORTION PER 10,000 TOTAL DEATHS.

State or Territory.	Number of Deaths.			Death-rates. (a)			Proportion per 10,000 Total Deaths.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
New South Wales	150	88	238	10	6	8	103	72	89
Victoria ..	84	38	122	8	4	6	79	39	60
Queensland ..	50	22	72	9	4	7	92	56	77
South Australia ..	34	14	48	11	5	8	107	50	80
Western Australia	31	11	42	12	5	9	116	61	94
Tasmania ..	12	5	17	10	4	7	90	43	68
Northern Territory	1	..	1	25	..	19	400	..	323
Australian Capital Territory ..	..	..	..	..	..	..	..	..	..
Australia 1944 ..	362	178	540	10	5	7	96	56	78
" 1943 ..	376	140	516	10	4	7	92	42	69
" 1942 ..	432	162	594	12	5	8	104	48	79
" 1941 ..	403	161	624	13	5	9	117	51	88
" 1940 ..	568	175	743	16	5	11	109	26	73
Average—1936-40	586	170	756	17	5	11	157	56	114
" 1931-35	635	163	798	19	5	12	190	62	134
" 1921-25	509	112	621	18	4	11	166	48	114
" 1911-15	509	115	624	21	5	13	172	53	122

(a) Number of deaths from suicide per 100,000 of mean population.

(d) *Age at Death.* From the following table which shows the age of persons who committed suicide in 1942, 1943 and 1944 it will be seen that both young and extremely old people took their lives during these years.

AGE OF PERSONS WHO COMMITTED SUICIDE : AUSTRALIA.

Group-age (Years).	1942.			1943.			1944.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
10-14 .. ..	..	..	..	2	..	2	3	..	3
15-19	14	5	19	18	3	21	10	8	18
20-24	18	12	30	9	5	14	6	15	21
25-29	15	13	28	18	10	28	18	14	32
30-34	22	24	46	26	11	37	16	15	31
35-39	43	11	54	29	10	39	31	20	51
40-44	31	18	49	28	19	47	26	15	41
45-49	42	19	61	35	25	60	38	14	52
50-54	62	24	86	44	22	66	31	21	52
55-59	61	15	76	48	10	58	49	17	66
60-64	44	8	52	36	11	47	40	15	55
65-69	36	8	44	26	2	28	37	11	48
70-74	26	1	27	21	7	28	35	11	46
75-79	8	4	12	19	3	22	9	1	10
80-84	9	..	9	13	2	15	11	1	12
85-89	1	..	1	4	..	4	2	..	2
90 and over ..	..	..	..	..	..	..	..	..	..
Total Deaths ..	432	162	594	376	140	516	362	178	540

(e) *Occupation at Death, Males.* In the following table males who committed suicide during 1921, 1931, 1941, 1942, 1943, and 1944 are classified according to main groups of occupations, and the percentage of each group on the total deaths from this cause is given.

OCCUPATION OF MALES WHO COMMITTED SUICIDE : AUSTRALIA.

Occupation Group.	Number of Male Deaths.					
	1921.	1931.	1941.	1942.	1943.	1944.
Agricultural, Pastoral, Mining, etc.	131	182	125	114	116	98
Industrial	180	256	88	78	67	70
Transport and Communication	42	52	26	33	20	24
Commercial	81	106	46	37	30	18
Professional	32	29	(b) 61	(b) 49	(b) 27	(b) 32
Personal Service	20	22	16	15	9	13
Indefinite (a)	24	42	(c) 106	(c) 106	(c) 107	(c) 107
Total	510	689	463	432	376	362

(a) Includes dependent and unoccupied males. (b) Includes clerks, etc., not specified as belonging to any industry, formerly included under "Commercial". (c) Includes labourers not specified as belonging to any industry, formerly included under "Industrial".

OCCUPATION OF MALES WHO COMMITTED SUICIDE: AUSTRALIA—*continued*.

Occupation Group.	Percentage of Total.					
	1921.	1931.	1941.	1942.	1943.	1944.
Agricultural, Pastoral, Mining, etc.	% 25.69	% 26.41	% 27.00	% 26.39	% 30.85	% 27.07
Industrial	35.29	37.16	19.01	18.06	17.82	19.34
Transport and Communication	8.24	7.55	5.61	7.64	5.32	6.63
Commercial	15.88	15.38	9.94	8.56	7.98	4.97
Professional	6.27	4.21	<i>b</i> 13.17	<i>b</i> 11.34	<i>b</i> 7.18	<i>b</i> 8.84
Personal Service	3.92	3.19	3.46	3.47	2.39	3.59
Indefinite (<i>a</i>)	4.71	6.10	<i>c</i> 21.81	<i>c</i> 24.54	<i>c</i> 28.46	<i>c</i> 29.56
Total	100.00	100.00	100.00	100.00	100.00	100.00

(*a*) Includes dependent and unoccupied males. (*b*) Includes clerks, etc., not specified as belonging to any industry, formerly included under "Commercial". (*c*) Includes labourers not specified as belonging to any industry, formerly included under "Industrial".

(*f*) *Death-rates, Various Countries.* The following table shows the death-rate from suicide for Australia and each State in comparison with the rates for various other countries. Figures for years later than 1939 are not given as they are based on population estimates whose comparability is open to doubt because of the abnormal distribution of population during war-time. The table indicates that Australia occupies a fairly favourable position as regards the death-rate from suicide.

SUICIDE: DEATH-RATES(*a*), VARIOUS COUNTRIES.

Country.	Year.	Rate.	Country.	Year.	Rate.
Egypt	1936	2.0	Great Britain and Nor-		
Eire	1939	2.7	thern Ireland	1936	12.2
Spain	1935	3.9	England and Wales	1936	12.4
Northern Ireland	1939	5.2	Portugal	1939	12.9
Greece	1936	5.7	U.S. of America	1939	14.2
Norway	1937	6.9	Queensland	1939	14.4
Italy	1938	7.2	Japan	1936	15.1
Victoria	1939	7.7	Western Australia	1939	15.3
Netherlands	1936	8.1	Sweden	1937	15.6
Tasmania	1939	8.4	Finland	1936	16.2
Canada	1939	8.7	Belgium	1935	16.8
Scotland	1939	9.0	Denmark	1935	19.4
South Australia	1939	10.9	France	1934	21.4
Australia	1939	11.2	Poland (<i>c</i>)	1936	22.0
Union of South Africa (<i>b</i>)	1939	11.3	Switzerland	1939	23.8
New Zealand	1939	11.7	Hungary	1939	26.0
New South Wales	1939	12.0	Germany	1935	27.5
			Czechoslovakia	1936	27.8

(*a*) Number of deaths per 100,000 of mean population. (*b*) European population only.
(*c*) In towns with over 100,000 inhabitants.

(xiv) *Homicide* (82). Deaths from homicide in 1944 numbered 106, which was 31 more than the previous year and 13 more than the average for the five years 1935 to 1939, namely, 93. See par. (xvi).

(xv) *Accidental or Violent Deaths (except Suicide and Homicide)*. Deaths from accidents in 1944 numbered 3,189 compared with an average of 3,766 for the previous five years. Of the deaths in 1944—1,218 occurred in New South Wales; 780 in Victoria; 536 in Queensland; 277 in South Australia; 251 in Western Australia; 114 in Tasmania; 8 in Northern Territory; and 5 in the Australian Capital Territory. See par. (xvi).

(xvi) *Accidental or Violent Deaths (including Suicide and Homicide)*. The following table shows the various kinds of violent deaths, including suicides and homicides, recorded in Australia for 1944. Corresponding figures for 1942 and 1943 may be obtained from *Demography Bulletin* Nos. 60 and 61 respectively.

DEATHS FROM EXTERNAL VIOLENCE : AUSTRALIA, 1944.

Cause of Death.	Males.	Females.	Persons.
Suicide (see par. (xiii))	362	178	540
Infanticide (murder of infants under 1 year) ..	4	3	7
Homicide by firearms	18	13	31
Homicide by cutting or piercing instruments ..	11	8	19
Homicide by other means	31	18	49
Total Homicide	64	42	106
Accidents on railways	104	20	124
Automobile accidents—			
Collisions with trains	20	20	40
Collisions with trams	6	6	12
Other automobile accidents	516	141	657
Motor cycle accidents(a)	38	4	42
Other road transport accidents—			
Tramway accidents (on roads)	55	33	88
Other road transport accidents	58	10	68
Water transport accidents	17	1	18
Air transport accidents	10	3	13
Accidents in mines and quarries	61	..	61
Agricultural and forestry accidents—			
Accidents from farm machinery and vehicles ..	22	..	22
Injury by animals	17	..	17
Other agricultural and forestry accidents ..	47	..	47
Accidents caused by machinery n.e.i.	40	..	40
Food poisoning	1	1	2
Accidental absorption of poisonous gases ..	20	10	30
Other acute accidental poisoning (not by gas) ..	30	20	50
Conflagration	43	18	61
Accidental burns (conflagration excepted) ..	96	69	165
Accidental mechanical suffocation	40	18	58
Accidental drowning	283	82	365
Accidental injury by firearms	62	5	67
Accidental injury by cutting or piercing instruments	10	1	11
Accidental injury by fall, crushing, landslide, etc.—			
Fall, not otherwise specified	427	423	850
Other crushings	32	4	36
Injuries by animals (n.e.i.)	13	..	13
Hunger or thirst	2	1	3
Excessive cold	7	..	7
Excessive heat	10	10	20
Electricity (lightning excepted)	38	1	39
Attack by venomous animals—			
Snakebite	7	2	9
Other	1	..	1
Other accidents—			
Vaccinia and other sequelæ of vaccination ..	..	1	1
Other accidents due to medical or surgical inter-			
vention	16	6	22
Lack of care of the new-born	1	4	5
Other and unspecified accidents	98	25	123
Deaths of civilians due to operations of war ..	1	..	1
Legal executions	1	..	1
External Violence, excluding Suicide and Homicide	2,250	939	3,189
Total Deaths from External Violence	2,676	1,159	3,835

(a) Other than collisions with trains, trams or motor-cars.

The following table of death-rates per million of mean population reveals a decrease in 1921-25 for External Violence, excluding Suicide and Homicide, but an increase in the rates for 1926-30 to which the growth of automobile accidents contributed very largely. A decreased death-rate was recorded during the period 1931-35, but the rate rose again during the period 1936-40. The sharp decline to 1944 may be attributed to the decrease in number of automobile accidents which has resulted from the war-time restrictions of travel.

DEATH-RATES, ETC., EXTERNAL VIOLENCE : AUSTRALIA.

Period.	Death-rates(a) from Homicide.			Death-rates(a) from External Violence, excluding Suicide and Homicide.			Death-rates(a) from all External Violence.			All External Violence Proportion per 10,000 Deaths.
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Persons.
1911-15 ..	21	16	19	948	268	621	1,170	330	770	718
1921-25 ..	17	13	15	753	211	487	950	260	610	643
1926-30 ..	19	15	17	843	240	549	1,070	300	690	746
1931-35 ..	21	11	16	714	223	472	923	284	609	676
1936-40 ..	18	9	13	862	283	576	1,069	342	699	725
1939 ..	15	6	11	943	335	642	1,129	393	765	771
1940 ..	18	10	14	887	308	600	1,024	340	685	702
1941 ..	8	9	8	782	262	525	919	317	621	619
1942 ..	17	10	13	735	269	504	872	324	600	572
1943 ..	14	7	10	647	260	454	764	306	536	520
1944 ..	17	12	15	613	258	436	729	319	525	551

(a) Number of deaths per 1,000,000 of mean population.

(xvii) "Other Diseases". The intermediate and the abridged classifications of causes of death used in Tables A to E in the preceding pages differ from that used in issues of the Official Year Book previous to No. 25 in that no residue of "other diseases" is shown at the foot. The items are ranged in classes or groups of classes and each class or group of classes is made complete by the addition of an "other diseases" item for that class or group of classes. These "other diseases" items of the intermediate classification are expanded into their constituent causes in the following table :—

F.—DEATHS FROM "OTHER DISEASES" : AUSTRALIA, 1944.

Causes.	General Classification Number.	Males.	Females	Persons.
17. OTHER INFECTIVE AND PARASITIC DISEASES.				
Cerebro-spinal meningococcal meningitis	6	73	47	120
Malignant pustule and anthrax	7	1	..	1
Erysipelas	11	5	5	10
Tetanus	12	36	25	61
Leprosy	23	6	4	10
Gonococcal infections	25	3	1	4
Relapsing fever	31	1	..	1
Other diseases due to spirochaetes	32	12	3	15
Acute poliomyelitis and polioencephalitis	36	7	15	22
Acute infectious encephalitis (lethargic or epidemic) ..	37	8	5	13
Herpes zoster	38c	1	4	5
German measles	38d	3	..	3
Chicken pox	38e	4	1	5
Other diseases due to viruses	38f	..	1	1
Mycoses	43	6	4	10
Veneral diseases other than syphilis and gonorrhœa ..	44a	1	..	1
Pernicious lymphogranulomatosis	44b	49	43	92
Mumps	44c	1	13	14
Other infective and parasitic diseases.	44d	..	..	..
Total .. ..	..	217	171	388

F.—DEATHS FROM "OTHER DISEASES": AUSTRALIA, 1944—*continued*.

Causes.	General Classifi- cation Number.	Males.	Females.	Persons.
29. OTHER GENERAL DISEASES.				
Diseases of the pituitary gland	62	4	1	5
Diseases of the thymus (including status lymphaticus) ..	64	16	13	29
Diseases of the adrenal glands	65	8	25	33
Other general diseases	66	26	29	55
Total .. ..	..	54	68	122
30. AVITAMINOSES.				
Scurvy	67	1	..	1
Beri-beri	68	..	..	..
Pellagra	69	..	1	1
Rickets	70	..	1	1
Other vitamin-deficiency diseases	71	..	1	1
Total .. ..	..	1	3	4
32. LEUCÆMIAS, ETC., AND OTHER DISEASES OF THE BLOOD AND BLOOD-FORMING ORGANS.				
Hæmorrhagic conditions	72	12	17	29
Leukæmias and aleukmæias				
Leukæmias	74a	138	82	220
Aleukmæias	74b	2	6	8
Diseases of the spleen	75	10	19	29
Other diseases of the blood and blood-forming organs ..	76	11	4	15
Total .. ..	..	173	128	301
34. OTHER CHRONIC POISONING.				
Lead poisoning—				
(a) Specified as occupational	78a	2	..	2
(b) Not specified as occupational	78b	6	4	10
Chronic poisoning by other substances—				
(a) Occupational poisoning	79a	..	..	..
(b) Other poisoning	79b	1	..	1
Total .. ..	..	9	4	13
40. OTHER DISEASES OF NERVOUS SYSTEM.				
Encephalitis (non-epidemic)—				
Intra-cranial abscess	80a	21	14	35
Other forms	80b	35	26	61
Convulsions in children under five years of age ..	86	19	14	33
Other diseases of the nervous system—				
Chorea	87a	1	1	2
Neuritis	87b	9	6	15
Paralysis agitans	87c	99	97	196
Disseminated sclerosis	87d	46	39	85
Others	87e	25	17	42
Total .. ..	..	255	214	469
48. OTHER DISEASES OF THE CIRCULATORY SYSTEM.				
Aneurysm (other than heart and aorta)	96	57	37	94
Other diseases of the arteries	99	53	39	92
Diseases of the veins (varices, hæmorrhoids, phlebitis, etc.)	100	13	15	28
Diseases of the lymphatic system (lymphangitis, etc.) ..	101	1	5	6
High blood pressure (idiopathic)	102	102	89	191
Other diseases of the circulatory system	103	..	2	2
Total .. ..	..	226	187	413

F.—DEATHS FROM "OTHER DISEASES": AUSTRALIA, 1944—*continued*.

Causes.	General Classifi- cation Number.	Males.	Females	Persons.
52. OTHER DISEASES OF THE RESPIRATORY SYSTEM (EXCEPT TUBERCULOSIS).				
Diseases of the nasal fossæ and annexa	104	16	12	28
Diseases of the larynx	105	23	16	39
Congestion, œdema, embolism, hæmorrhagic infarction and thrombosis of the lungs	111	211	214	425
Asthma	112	70	58	128
Pulmonary emphysema	113	14	3	17
Other diseases of the respiratory system (except tuber- culosis)—				
Silicosis and other occupational respiratory diseases	114a	66	..	66
Gangrene of the lung	114b	5	3	8
Abscess of the lung	114c	20	11	31
Chronic interstitial pneumonia other than occu- pational	114d	10	6	16
Other diseases of the respiratory system not specified as occupational	114e	42	19	61
Total .. ..	..	477	342	819
60. OTHER DISEASES OF THE DIGESTIVE SYSTEM.				
Diseases of the buccal cavity and annexa, etc.—				
Diseases of pharynx and tonsils	115a	42	37	79
Other diseases	115b	16	11	27
Diseases of the œsophagus	116	6	9	15
Other diseases of the stomach (cancer excepted) ..	118	37	27	64
Other diseases of the intestines	123	47	44	91
Diseases of the pancreas	128	37	24	61
Peritonitis without stated cause	129	35	36	71
Total .. ..	..	220	188	408
72. OTHER ACCIDENTS AND DISEASES OF CHILD- BIRTH AND THE PUERPERIUM.				
Hæmorrhage of child-birth and the puerperium ..	146	..	56	56
Puerperal toxæmias—				
Puerperal eclampsia	148a	..	38	38
Puerperal albuminuria and nephritis	148b	..	13	13
Acute yellow atrophy of the liver (post-partum) ..	148c	..	5	5
Other puerperal toxæmias	148d	..	9	9
Other accidents of child-birth	149	..	39	39
Other or unspecified diseases of child-birth and the puerperium	150	..	12	12
Total .. ..	..	..	172	172

17. **Causes of Deaths in Classes.**—The figures in the preceding sub-sections relate to specific causes of death, and are of greater value in medical statistics than a mere grouping under general headings. The classification under eighteen general headings adopted by the compilers of the International Nomenclature is, however, shown in the

following table for 1944, together with the death-rates and proportions of total deaths pertaining to those classes. A further table furnishes the death-rates for the five-yearly periods 1921-25, 1931-35 and 1936-40. Figures for 1942 and 1943 corresponding to the first table may be obtained from *Demography Bulletin*, Nos. 60 and 61 respectively.

DEATHS, DEATH-RATES, ETC., IN CLASSES : AUSTRALIA, 1944.

Class.	Total Deaths.			Death-rates(a).			Proportion per 10,000 Deaths.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
1. Infective and Parasitic Diseases	2,415	1,411	3,826	66	39	52	639	444	550
2. Cancer and Other Tumours	4,369	4,663	9,032	119	128	124	1,155	1,467	1,298
3. Rheumatism, Diseases of Nutrition and of the Endocrine Glands, Other General Diseases and Vitamin-deficiency Diseases	637	1,288	1,925	17	35	26	169	405	277
4. Diseases of the Blood and Blood-forming Organs	269	277	546	7	8	7	71	87	78
5. Chronic Poisoning and Intoxication	65	23	88	2	1	1	17	7	13
6. Diseases of the Nervous System and Sense Organs	3,509	4,428	7,937	96	122	109	928	1,394	1,140
7. Diseases of the Circulatory System	12,693	9,676	22,369	316	266	300	3,356	3,645	3,214
8. Diseases of the Respiratory System	3,000	2,176	5,176	82	60	71	793	685	744
9. Diseases of the Digestive System	1,916	1,361	3,277	52	37	45	597	428	471
10. Diseases of the Genito-Urinary System	2,747	1,891	4,638	75	52	64	726	595	665
11. Diseases of Pregnancy, Child-birth and Puerperal State	..	437	437	..	12	6	..	138	63
12. Diseases of the Skin and Cellular Tissue	54	57	111	1	2	2	14	18	16
13. Diseases of the Bones and Organs of Movement	65	53	118	2	1	2	17	17	17
14. Congenital Malformations	431	359	790	12	10	11	114	113	114
15. Diseases Peculiar to the First Year of Life	1,586	1,188	2,774	43	33	38	419	374	399
16. Senility, Old-age	1,225	1,268	2,493	33	35	34	324	399	358
17. Violent or Accidental Deaths	2,676	1,159	3,835	73	32	52	708	365	551
18. Ill-defined Causes of Death	163	61	224	4	1	3	43	19	32
Total	37,820	31,776	69,596	1,030	874	953	10,000	10,000	10,000

(a) Number of deaths per 100,000 of mean population.

DEATH-RATES(a) IN CLASSES : AUSTRALIA.

Class.	1921-25.			1931-35.			1936-40.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
1. Infective and Parasitic Diseases	248	222	236	92	70	81	80	56	68
2. Cancer and Other Tumours				113	108	110	121	120	121
3. Rheumatism, Diseases of Nutrition and of the Endocrine Glands, Other General Diseases and Vitamin-deficiency Diseases				18	33	25	20	36	28
4. Diseases of the Blood and Blood-forming Organs				9	9	9	8	8	8
5. Chronic Poisoning and Intoxication				2	..	1	2	1	1
6. Diseases of the Nervous System and Sense Organs	93	83	88	66	67	67	67	74	70
7. Diseases of the Circulatory System	150	118	134	249	200	225	318	245	282
8. Diseases of the Respiratory System	121	88	105	101	75	88	100	72	86
9. Diseases of the Digestive System	97	81	89	60	46	53	59	44	52
10. Diseases of the Genito-Urinary System	72	49	60	81	59	70	85	61	73
11. Diseases of Pregnancy, Child-birth and Puerperal State	..	25	12	..	19	9	..	17	8
12. Diseases of the Skin and Cellular Tissue	6	4	5	3	3	3	3	2	3
13. Diseases of the Bones and Organs of Movement	3	2	2	3	1	2	3	1	2
14. Congenital Malformations	12	10	11	11	8	10	11	9	10
15. Diseases Peculiar to the First Year of Life	73	56	65	44	34	39	43	33	38
16. Senility, Old-age	76	68	72	42	42	42	39	41	40
17. Violent or Accidental Deaths	95	26	61	92	28	61	105	34	70
18. Ill-defined Causes of Death	13	9	12	7	2	5	5	2	4
Total	1,061	841	952	993	804	900	1,069	856	964

(a) Number of deaths per 100,000 of mean population.

18. Age at Death of Married Males and Females, and Issue.—*Demography Bulletin*, No. 62, contains a number of tables showing, in combination with the issue, the age at marriage, age at death, and occupation of married persons who died in Australia in 1944. A summary of those tables is given hereunder. Deaths of married males in 1944 numbered 26,166, and of married females, 23,990. The tabulations which follow deal, however, with only 25,752 males and 23,838 females, the information regarding issue in the remaining 566 cases being incomplete. The total number of children in the families of the 25,752 males was 96,386, and of the 23,838 females, 95,210. The average number of children is shown for various age-groups in the following table:—

AGE AT DEATH, AND AVERAGE ISSUE OF MARRIED MALES AND FEMALES: AUSTRALIA.

Group-age. (Years.)	Average Issue.									
	Males.					Females.				
	1911.	1921.	1931.	1941.	1944.	1911.	1921.	1931.	1941.	1944.
Under 20 ..	0.33	..	0.75	..	0.50	0.94	0.77	0.66	0.79	0.81
20-24 ..	0.77	0.84	0.81	0.73	0.66	1.27	1.22	1.13	0.95	0.91
25-29 ..	1.25	1.29	1.33	1.12	1.16	1.82	1.86	1.81	1.45	1.32
30-34 ..	2.05	2.06	1.79	1.76	1.54	2.74	2.45	2.34	1.91	1.67
35-39 ..	2.80	2.58	2.13	2.11	1.94	3.64	3.29	2.89	2.30	2.51
40-44 ..	3.47	3.23	2.77	2.49	2.34	4.09	3.66	3.29	2.77	2.68
45-49 ..	4.09	3.48	3.10	2.68	2.62	4.54	3.76	3.55	2.93	2.78
50-54 ..	4.75	3.76	3.46	2.96	2.76	5.35	4.23	3.60	3.29	3.09
55-59 ..	5.44	4.41	3.69	3.28	3.11	5.86	4.69	4.01	3.55	3.32
60-64 ..	5.95	4.98	4.02	3.55	3.42	5.99	5.39	4.21	3.79	3.66
65-69 ..	6.23	5.50	4.41	3.73	3.59	6.50	5.86	4.82	4.01	3.88
70-74 ..	6.41	6.06	5.06	4.17	3.87	6.38	6.30	5.41	4.29	4.03
75-79 ..	6.75	6.66	5.65	4.56	4.30	6.72	6.56	6.02	4.85	4.51
80-84 ..	6.68	6.89	6.17	4.93	4.77	6.22	6.76	6.26	5.39	4.94
85-89 ..	6.67	7.18	6.59	5.70	5.45	5.97	6.93	6.57	5.85	5.54
90-94 ..	6.03	7.21	6.94	6.57	5.57	5.69	6.53	6.73	6.11	6.02
95-99 ..	7.30	6.97	6.69	7.04	7.12	5.05	6.05	7.10	6.34	6.57
100 and over	9.33	9.20	7.00	8.69	2.29	5.17	5.11	8.20	6.73	6.36
Age not stated	4.33	5.36	5.00	..	..	4.60	5.80	5.00	..	..
All Ages ..	5.42	4.97	4.44	3.91	3.74	5.35	5.05	4.72	4.22	3.99

The figures in the preceding table include the issue both living and dead, the proportion between them, taking the issue of deceased males and females together, being about 1,000 to 216. The totals are shown in the following table:—

ISSUE OF DECEASED MARRIED MALES AND FEMALES: AUSTRALIA, 1944.

Issue of Married Males.				Issue of Married Females.			
	Males.	Females.	Total.		Males.	Females.	Total.
Living ..	40,928	40,323	81,251	Living ..	38,004	38,319	76,323
Dead ..	8,847	6,288	15,135	Dead ..	10,880	8,007	18,887
Total ..	49,775	46,611	96,386	Total ..	48,884	46,326	95,210

19. Age at Marriage of Deceased Males and Females, and Issue.—While the table giving the average issue of married males and females naturally shows an increase in the averages with advancing age at death, the following table which gives the average

issue of males and females according to the age at marriage of the deceased parent shows a corresponding decrease in the averages as the age at marriage advances :—

AGE AT MARRIAGE OF DECEASED MALES AND FEMALES, AND AVERAGE ISSUE : AUSTRALIA.

Group-age. (Years.)	Average Issue.									
	Males.					Females.				
	1911.	1921.	1931.	1941.	1944.	1911.	1921.	1931.	1941.	1944.
Under 15 ..	..	..	..	..	..	9.71	7.60	6.36	7.80	6.38
15-19 ..	6.97	6.32	6.15	5.40	5.34	7.10	6.97	6.79	6.10	5.85
20-24 ..	6.34	6.05	5.56	4.89	4.72	5.77	5.50	5.23	4.80	4.55
25-29 ..	5.70	5.17	4.70	4.21	3.99	4.27	4.09	3.79	3.51	3.40
30-34 ..	4.92	4.45	3.96	3.41	3.32	3.04	2.66	2.42	2.35	2.26
35-39 ..	4.05	3.90	3.14	2.80	2.85	1.68	1.61	1.40	1.26	1.20
40-44 ..	3.43	2.67	2.36	2.01	2.07	0.72	0.62	0.39	0.35	0.48
45-49 ..	2.59	2.20	1.96	1.52	1.63	0.26	0.03	0.12	0.01	0.44
50-54 ..	2.45	1.70	1.60	1.05	1.05	..	..	..	..	..
55-59 ..	1.66	1.30	0.95	0.79	0.94	..	..	..	..	..
60-64 ..	2.00	0.33	0.63	0.29	0.88	..	..	..	..	..
65 and over ..	1.00	0.25	0.18	0.01	0.64	..	..	..	..	..
Age unspecified	5.40	4.93	3.64	2.95	2.92	5.23	5.41	3.96	2.45	2.48
All Ages ..	5.42	4.97	4.44	3.91	3.74	5.35	5.05	4.72	4.22	3.99

20. Birthplace of Deceased Married Males and Females, and Issue.—A table showing the birthplaces of married males and females who died in 1911 and 1940, together with the average issue, may be found in the Official Year Book, No. 34, p. 366.

21. Occupation of Deceased Married Males and Issue.—A summary of the main groups of occupations of married males who died during 1921, 1931, 1941, 1942, 1943 and 1944, together with the average issue of the deceased in each group, is given in the following table :—

OCCUPATION OF DECEASED MARRIED MALES AND AVERAGE ISSUE : AUSTRALIA.

Occupation Group.	Number of Deaths of Married Males.					
	1921.	1931.	1941.	1942.	1943.	1944.
Agricultural, Pastoral, Mining, etc.	3,983	4,495	5,943	6,294	6,216	5,978
Industrial	5,086	6,883	6,019	6,433	6,269	6,017
Transport and Communication	1,254	1,742	2,195	2,403	2,370	2,200
Commercial	1,977	2,962	3,018	3,183	3,077	2,955
Professional	926	1,194	b 3,001	b 2,927	b 3,253	b 2,965
Personal Service	552	621	709	699	740	768
Indefinite (a)	774	975	c 4,977	c 5,440	c 5,313	c 4,869
Total	14,552	18,872	25,862	27,379	27,238	25,752

(a) Includes dependent and unoccupied males. (b) Includes clerks, etc. not specified as belonging to any industry, formerly included under "Commercial". (c) Includes labourers not specified as belonging to any industry, formerly included under "Industrial".

OCCUPATION OF DECEASED MARRIED MALES AND AVERAGE
ISSUE: AUSTRALIA—*continued*.

Occupation Group.	Average Issue.					
	1921.	1931.	1941.	1942.	1943.	1944.
Agricultural, Pastoral, Mining, etc.	5.83	5.31	4.65	4.20	4.46	4.46
Industrial	4.95	4.49	3.79	3.77	3.67	3.65
Transport and Communication	4.63	4.15	3.84	3.59	3.64	3.59
Commercial	4.18	3.55	3.35	3.29	3.27	3.30
Professional	4.04	3.78 ^b	3.10	2.94 ^b	3.08 ^b	2.94
Personal Service	3.55	3.64	2.97	3.03	3.17	2.66
Indefinite (a)	5.47	4.65 ^c	4.15 ^c	4.14 ^c	4.00 ^c	3.98
Total	4.97	4.44	3.91	3.86	3.78	3.74

(a) Includes dependent and unoccupied males. (b) Includes clerks, etc., not specified as belonging to any industry, formerly included under "Commercial". (c) Includes labourers not specified as belonging to any industry, formerly included under "Industrial".

§ 4. Registration of Births, Deaths and Marriages in the Australian Capital Territory.

To the end of 1929 the provisions of the Registration of Births, Deaths and Marriages Act of 1899 and the Marriage Act of 1899 of New South Wales applied to the Australian Capital Territory. Births, deaths and marriages occurring within the Territory were registered by the District Registrars at Queanbeyan and Nowra, and were incorporated in the New South Wales records.

In 1929, however, the Registration of Births, Deaths and Marriages Ordinances were enacted, providing for the assumption by the Commonwealth Government of the function of registration within the Territory as from 1st January, 1930. All registrations are made at the Registrar's Office, Civic Centre, Canberra.

Marriages within the Territory are celebrated according to the conditions prescribed by the Marriage Ordinance 1929-1938. This Ordinance, which closely follows the provisions of the Marriage Act of New South Wales, which it supersedes as regards the Australian Capital Territory, came into operation on 1st January, 1930.

CHAPTER XVI.

LOCAL GOVERNMENT.

§ 1. Introduction.

1. **General.**—The following statistics relating to Local Government are somewhat incomplete and otherwise unsatisfactory, but efforts are being made to obtain fuller and more reliable information. During the war it was found necessary, because of manpower shortage, to discontinue the statistical returns respecting Local Government Authorities, but it is hoped to recommence them before the next issue of the Year Book. The latest figures available have been inserted in the following sections. Prior to the war, many of the defects in the statistics of Local Government Authorities had been eliminated and the returns were prepared on more uniform lines and in greater detail than formerly.

2. **Roads, Bridges, etc.**—The construction and maintenance of roads, bridges and ferries are generally part of the functions of local authorities, but in New South Wales and South Australia, more especially in the large unincorporated areas, these duties are undertaken directly by the Government. In some States, moreover, a certain proportion of the roads and bridges is constructed and maintained by the Government, which, in addition, advances money for main roads to be expended by municipalities under the supervision of special Boards. Although roads and bridges constructed and maintained directly by the Government do not properly come under the heading of "Local Government", they have been included in this chapter for the sake of convenience. Owing to the difficulty of obtaining complete particulars of receipts and expenditure by the various local governing bodies in regard to roads under their control, the details of receipts and expenditure given in § 2 are those of the Government only, relating either to the supervisory board or commission in the State or to direct activities of a department. In § 3 some information is given of the revenue and expenditure of Local Government Authorities in respect of roads.

3. **Local Government Authorities.**—A description of the various systems of municipal government in the different States, and their development from the earliest date, was published in 1919 by this Bureau in a separate work entitled *Local Government in Australia*.

4. **Water Supply and Sewerage.**—In the cities of Sydney and Melbourne the control of water supply and sewerage is in the hands of special Boards, while in Adelaide and Perth these services are under the direct supervision of Government departments. In most of the other cities and towns, the municipal councils, or, in some cases, water trusts, are the controlling bodies which either construct the works out of their own resources or take them over after they have been constructed by the Government.

5. **Harbours.**—The majority of the harbours in Australia are managed by Boards, the members of which are either elected by persons interested, or are appointed by the Government. In a few instances, however, they are directly controlled by the Government. Only those which are controlled by Boards are dealt with in the following pages.

6. **Fire Brigades.**—In all the States, the management of fire brigades is undertaken by Boards. These Boards usually comprise members elected by the councils of municipalities and insurance companies within the districts placed under their jurisdiction, and one or more members appointed by the Government. Occasionally volunteer or country fire brigades are represented.

§ 2. Roads and Bridges.

1. **New South Wales.**—(i) *General.* A central road authority was created by legislation early in 1925 for the purpose of providing improved and uniform standards of construction and maintenance of the principal roads, and to administer Governmental subsidies for work on those roads. The funds of this authority (now the Department of Main Roads) are derived principally from taxation of motor vehicles, contributions by the Commonwealth Government from the proceeds of a tax on petrol, direct contributions by Municipal and Shire Councils, and special (not statutory) assistance by the State Government by way of loan moneys or special grants from revenue funds.

The following five classes of roads are granted assistance from the central authority:—

State Highways.—Roads which are principal avenues of communication between the coast and the interior or throughout the State and connect with such avenues in other States.

Trunk Roads.—Roads which, being secondary avenues of road communication, form with the State Highways the framework of a general system of intercommunication throughout the State.

Ordinary Main Roads.—Roads which are used principally by through traffic as the means of intercommunication between towns or important centres of population and which with the State Highways and Trunk Roads form part of the general system of road communication throughout the State.

Secondary Roads.—Roads in the Metropolitan area of Sydney which carry a substantial amount of through traffic and relieve neighbouring main roads of traffic which they would otherwise have to bear.

Developmental Roads.—Roads which serve to develop a district or area of land by improving or providing access to a railway station or a shipping wharf or to a road leading to a railway station or a shipping wharf.

The State is divided into two divisions for local government and road administration purposes. The Eastern Division is incorporated in shires and municipalities throughout its area, while the Western Division, which covers a wide tract of sparsely populated country, is unincorporated except for six municipalities and portion of another municipality.

In the Eastern Division assistance, as described hereunder, is given to local councils for works on classified roads. For other roads the cost of both construction and maintenance work is generally chargeable to the revenue of local authorities although Governmental assistance is not infrequently granted for works of construction and reconstruction. This is particularly so in times of acute unemployment, and during the depression and for some years afterwards substantial sums were distributed for roads by way of grants, primarily to provide employment. There is, in addition, a regular annual endowment (£177,500 since 1937) for shires, a large proportion of which is used for road purposes.

The degree of subsidy from the central road fund varies in the Eastern Division according to the situation of the area concerned, and the classification of the road. There are two areas involved (County of Cumberland and Country) and five road classes as already described.

The County of Cumberland embraces all municipalities and shires between the Nepean-Hawkesbury River and the Pacific Ocean as far as Bulli on the south, and includes the metropolitan area of Sydney, while the Country covers the remainder of the Eastern Division. In addition to the whole of the motor taxation collected in the Country, with the exception of a small proportion paid into the Public Vehicles Fund, half of that collected in the County of Cumberland must be spent in the Country. The contribution by the Commonwealth Government from petrol taxation is distributed between the County of Cumberland and the Country in the same proportion as the motor taxation. The councils in the County of Cumberland, other than the City of Sydney, are required to pay into the County of Cumberland Main Roads Fund a levy on the unimproved capital value of ratable lands in their areas. The levy may not exceed $\frac{1}{2}$ d. in the £1 and since 1933 has been at the rate of $\frac{1}{18}$ d.; lands used for primary production are levied at half the rate on other lands. The full cost of work on all proclaimed main roads in the County of Cumberland, together with half the cost of work on proclaimed secondary roads, is met from the funds of the Department of Main Roads. The rate of contribution by Country Councils to the Country Main Roads Fund, depending on the amount expended on main roads, must not exceed $\frac{1}{2}$ d. in the £1 of unimproved capital value. The present rates of subsidy to Councils for works in the country are as follows :—

State Highways	Full cost.
Trunk Roads	Three-quarters of cost.
Ordinary Main Roads	Two-thirds of cost.
Developmental Roads	Full cost of approved construction works only.

For construction of bridges over 20 feet span these subsidies are increased so that the central authority meets the whole cost on State Highways and Trunk Roads, and three-quarters of the cost on ordinary main roads.

The full cost of all roads and bridges in the Western Division is met by the central road authority.

All work in the Western Division throughout a length of 7,766 miles is carried out directly by the central road authority, while in the Eastern Division the work is carried out by the councils except for approximately 2,000 miles, mostly on State Highways.

(ii) *Length of Roads—*

Eastern Division—

Proclaimed Roads (30th June, 1944)—					Miles.
State Highways .. ..	..	..	..	..	5,145
Trunk Roads .. ..	..	..	..	..	2,369
Ordinary Main Roads .. ..	..	..	..	..	9,610
Secondary Roads .. ..	..	..	..	..	80
Developmental Roads .. ..	..	..	..	..	2,749
Minor Roads (30th June, 1939) .. ..	..	..	..	..	98,339
<i>Western Division</i> (30th June, 1939) .. ..	..	..	..	..	7,766
					<hr/> 126,058

At 30th June, 1939, there were 32 miles of wood block, 332 of cement concrete, 248 of asphaltic concrete, 3,282 of tar or bituminous macadam (premixed or penetrated), 2,591 of surfaced water-bound macadam or gravel, 3,684 of water-bound macadam, 27,037 of gravel or crushed rock, and 88,852 miles were formed only, cleared only, or of natural surface.

(iii) *Income and Expenditure.*—The income and expenditure of the Department of Main Roads for the five years 1938–39 and 1940–41 to 1943–44 are shown below. The particulars include extensive defence works constructed in New South Wales and elsewhere on behalf of the Commonwealth Government. Commencing with the year 1941–42 a change was made to a receipts and payments system of accounting:—

DEPARTMENT OF MAIN ROADS, NEW SOUTH WALES: INCOME AND EXPENDITURE.

Item.	1938–39.	1940–41.	1941–42.(a)	1942–43.(a)	1943–44.(a)
INCOME.					
	£	£	£	£	£
Motor Tax Fees, etc. ..	2,018,555	2,193,856	1,879,297	1,644,126	1,758,057
Petrol Taxation (Federal Aid Roads and Works Act) ..	1,176,039	956,352	599,294	440,031	143,958
Councils' direct contributions ..	250,679	242,474	221,085	242,052	237,972
Loans from State Government ..	302,643	1,039,940	644,504	50,000	..
Contributions from Revenue, State Government ..	..	809,375	383,633	—1,461	—2,320
Commonwealth Defence Works ..	..	160,420	1,220,708	3,776,425	2,033,340
Other ..	68,332	79,883	99,790	193,821	215,855
Total ..	3,816,248	5,482,300	5,048,311	6,344,994	4,386,862
EXPENDITURE.					
	£	£	£	£	£
Roads and Bridges in New South Wales—					
Construction ..	61,736,898	2,909,998	1,811,078	596,302	465,097
Maintenance ..	61,519,929	1,454,246	1,293,451	1,121,456	1,552,390
Debt Charges—					
Interest, Exchange, etc. ..	152,469	236,588	244,993	178,499	164,672
Sinking Fund and Repayments ..	200,591	181,204	159,094	129,735	150,234
Defence Works ..	(b)	153,992	1,126,398	3,717,719	1,343,043
Administration, etc. ..	(b)101,497	125,525	223,014	234,676	177,206
Total ..	3,711,384	5,061,553	4,858,028	5,978,387	3,852,642

(a) Receipts and payments.

(b) Not fully comparable with corresponding figures in following years.

The total expenditure on all roads in the State by all authorities during 1939–40, the latest year for which particulars are available, was £8,530,438.

(iv) *Sydney Harbour Bridge.* The Sydney Harbour Bridge was opened for traffic on 19th March, 1932. The main span is 1,650 feet and the clearance for shipping 170 feet from high water level. The deck, 160 feet wide, carries a roadway, two railway tracks, two tramway tracks and a footway on each side. The capital cost of the bridge to the 30th June, 1944, was £9,761,878, but this amount will be reduced by approximately £150,000 upon the disposal of all surplus resumed property. War-time restrictions on

motor traffic greatly reduced motor tolls with the consequence that the accumulated balance of the Bridge Account was converted from a surplus of £94,059 in 1939 to a deficiency of £400,427 at 30th June, 1944. The following table shows income and expenditure for the years 1938-39 and 1940-41 to 1943-44 :—

SYDNEY HARBOUR BRIDGE, NEW SOUTH WALES : INCOME AND EXPENDITURE.

Item.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
INCOME.					
	£	£	£	£	£
Road Tolls	278,297	254,011	165,654	126,411	131,156
Railway Passenger Tolls ..	103,697	85,701	98,821	111,336	116,184
Tram and Omnibus Passenger Tolls	38,738	20,630	23,458	24,404	24,886
Other	8,366	9,031	8,276	8,810	9,009
Total	429,098	369,373	296,209	270,961	281,235

EXPENDITURE.					
	£	£	£	£	£
Maintenance and Improvement ..	36,739	34,305	28,227	25,485	24,135
Special War Expenditure ..	..	8,955	20,255	15,891	8,811
Interest, Exchange, etc. ..	334,797	305,184	326,179	319,423	313,663
Sinking Fund	40,564	43,919	49,173	52,279	55,097
Other	12,194	12,151	11,534	10,642	11,063
Total	424,294	404,514	435,368	423,720	412,769

2. *Victoria.*—(i) *General.* With the object of improving the main roads of the State the Country Roads Board was established by legislation passed in 1912. The principal duties of the board are to determine the main roads, State highways, tourists' roads, etc., to inquire into the State's resources in road materials and the most effective methods of road construction and maintenance, and to recommend deviations in existing roads or the construction of new roads in order to facilitate communication or to improve the conditions of traffic.

(ii) *Length of Roads and Streets.* At the end of 1943 there were 105,564 miles of roads and streets in Victoria, comprising 67 miles of wood or stone, 131 of portland cement concrete, 255 of asphaltic concrete and sheet asphalt, 8,701 of tar or bitumen surface, 25,960 of water-bound macadam, gravel, sand, and hard loam pavements, 25,385 formed only, and 45,065 surveyed only but used for general traffic. Of the total length, only 2,800 miles or less than 3 per cent. were State highways.

(iii) *Receipts and Payments.* Funds created under the Act were the Country Roads Board Fund, the Loan Account and the Developmental Roads Loan Account. Particulars of the operations of these funds are given hereunder.

(a) *Country Roads Board Fund.* All fees (other than fees for licences to drive motor cars) and fines under the Motor Car Act, and all registration fees and fines for traction engines, less cost of collection of such fees and fines, are credited to this fund. The total receipts and payments for the years 1938-39 and 1940-41 to 1943-44 were as follows:—

COUNTRY ROADS BOARD FUND, VICTORIA: RECEIPTS AND PAYMENTS.

Item.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
RECEIPTS.					
	£	£	£	£	£
Fees, Motor Car Act	1,690,962	1,682,980	1,443,597	1,248,426	1,344,524
Payment by Municipalities ..	318,878	312,042	297,878	244,756	225,653
Stores and Materials	233,104	199,931	231,312	286,366	270,121
Hire of Plant	53,724	59,979	57,033	58,627	104,333
Other	117,341	74,173	93,990	272,398	224,287
Total	2,414,009	2,329,105	2,123,810	2,110,573	2,168,918

PAYMENTS.

	£	£	£	£	£
Maintenance and Reconditioning of Main Roads	1,201,002	1,009,842	627,762	519,033	645,640
Relief to Municipalities	240,170	229,290	223,790	221,040	221,040
Interest, Sinking Fund, etc.—					
Recoup to Consolidated Revenue	308,278	351,684	357,723	343,469	343,069
Municipalities' Repayments ..	119,167	114,598	112,901	110,258	108,604
Plant, Stores and Materials ..	310,332	312,063	326,969	445,614	336,844
Other (including Administration)	234,192	201,279	211,650	292,919	292,553
Total	2,413,141	2,218,756	1,860,795	1,932,333	1,947,750

(b) *Country Roads Board Loan Account.* Loans to the amount of £5,322,000 have been authorized from time to time under the Country Roads Acts for permanent works on main roads and State highways. During the years ended 30th June, 1943 and 1944 there were no transactions. The total expenditure to 30th June, 1944, was £5,047,126.

(c) *Developmental Roads Loan Account.* For the purpose of constructing and maintaining subsidiary or developmental roads, the Government was authorized to borrow sums aggregating £6,475,000. These loan moneys were exhausted at 30th June, 1937, the total expenditure at that date being £6,425,757. The difference between the two amounts represents discount and expenses in connexion with the loan.

(d) *Federal Aid Roads and Works Account.* Revenue and expenditure in respect of the Federal Aid Roads and Works Account, particulars of which are not included above, were as follows:—

Item.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
	£	£	£	£	£
Revenue	716,019	541,723	391,858	276,883	309,748
Expenditure	781,088	478,291	171,735	136,682	158,555

(e) *Total Expenditure.* The total expenditure by the Board on road construction during each of the five years 1938-39 and 1940-41 to 1943-44 was as follows:—

COUNTRY ROADS BOARD : EXPENDITURE ON ROADS.

Item.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
	£	£	£	£	£
State Highways (a)	453,708	392,510	237,136	203,964	240,729
Main Roads (a)	1,027,210	728,179	438,260	329,544	422,888
Developmental Roads (a) ..	468,122	303,985	100,308	88,920	94,526
Tourists' Roads	77,694	55,389	20,605	27,880	44,479
Murray River Bridges and Punts	4,067	3,668	2,908	2,555	3,635
Roads adjoining Commonwealth Areas	13,321	8,647	3,188	5,407	1,572
Unemployment Relief	54,662	4,871	1,212	20	..
Commonwealth Defence Works—					
Unemployment Relief .. ..	..	21,392	9,072	9,443	5,106
Northern Territory .. ..	..	..	131,898	670,102	894,436
Allied Works Council .. ..	..	..	1,158	43,842	20,991
Total	2,098,784	1,518,641	945,745	1,381,677	1,728,362

(a) Includes amounts contributed by the Commonwealth Government under the provisions of the Federal Aid Roads Act.

3. *Queensland.*—(i) *General.* Under the Main Roads Act 1920 a Main Roads Board was constituted, consisting of three members appointed by the Governor-in-Council. In 1925 the Board was abolished and its powers conferred upon a single Commissioner.

The duties of the Commissioner are to carry out surveys and investigations necessary to determine State highways, main, developmental, secondary, farmers', mining access and tourist roads or tourist tracks, and, under certain circumstances, to undertake their construction and maintenance.

With the exception of State highways, mining access roads or tourist tracks, no road can be proclaimed until the Commission has considered any objections thereto lodged by interested local authorities.

Local authorities are not liable for the return of any expenditure for construction on State highways, mining access roads (serving only mining interests) or tourist tracks, but are, however, responsible for up to 50 per cent. of maintenance. The liability in respect of main roads is 20 per cent. of construction costs; developmental roads 20 per cent. of interest on construction costs; secondary and farmers' roads 50 per cent. of construction costs; and tourist roads as agreed prior to commencement of work. The liability in respect of maintenance of State highways, main, developmental, secondary and farmers' roads is 50 per cent. In the case of mining access roads and tourist tracks no repayment is required. The Commissioner has power to reduce the amount of contribution payable by any local authority in respect of permanent works and maintenance where the rate required to produce the annual repayment exceeds 1d. in the £1 on the property valuation of the whole area. He has also power to grant relief in exceptional circumstances.

(ii) *Length of Roads.* At 30th June, 1940, there were under various local authorities 125,095 miles of roads in Queensland, of which 6,320 were natural or of artificial sand-clay loam, 6,287 of water-bound pavement, 1,432 of water-bound pavement with bitumen surface, 946 of bituminous penetration macadam, 64 of concrete, 27,616 formed only and 82,430 unconstructed but used for general traffic. At 30th June, 1944 (in brackets, 30th June, 1943), the mileage controlled by the Main Roads Commission was 16,645 (16,453) comprising 9,059 (9,172) miles of main roads, 6,232 (5,910) of State highways and 1,354 (1,371) of developmental, tourist, etc., roads.

(iii) *Receipts and Payments.* The total receipts and payments, including amounts for defence works, of the Main Roads Commission during each of the years 1938-39 and 1940-41 to 1943-44 are shown below:—

MAIN ROADS COMMISSION, QUEENSLAND: RECEIPTS AND PAYMENTS.

Item.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
RECEIPTS.					
	£	£	£	£	£
Motor Vehicle Registration Fees, Transport Licensing Fees, Fines, etc.	874,264	965,040	824,378	682,365	748,177
Treasury Payments (including Loans)	972,000	778,500	839,245	975,244	1,288,891
Federal Aid Roads Agreement	806,218	662,427	410,232	301,979	337,152
Commonwealth and Allied Defence Works . . . . .	..	284,730	2,380,292	1,115,819	8,769,411
Maintenance Repayments—Local Authorities	98,154	120,269	109,993	116,018	93,368
Other	352,293	153,543	148,323	209,954	218,685
Total	3,102,929	2,964,509	4,712,463	13,401,379	11,455,684
PAYMENTS.					
	£	£	£	£	£
Road Works and Surveys	2,045,900	1,168,408	1,335,258	1,045,046	457,892
Maintenance of Roads	331,734	393,451	344,657	308,772	368,002
Port Development Works . . . . .	..	..	..	314,019	403,730
Public Estate Improvement Works, etc. . . . .	..	..	..	13,666	..
Plant, Machinery, Buildings, etc. (including Plant Maintenance)	73,963	112,887	242,234	687,753	Cr. 81,451
Redemption—Main Roads Loans	38,861	51,572	59,299	84,607	96,981
Interest	78,153	106,395	122,449	152,920	169,368
Transfer to State Consolidated Revenue	250,000	250,000	250,000	..	..
Commonwealth and Allied Defence Works . . . . .	..	303,064	2,060,924	9,373,576	9,267,982
Administration, etc.	149,619	161,824	175,963	185,991	175,281
Other	119,412	122,926	116,586	101,313	113,556
Total	3,087,642	2,670,527	4,707,370	12,268,323	10,971,341

4. *South Australia.*—(i) *General.* The Highways Act 1926-44 created a Commissioner of Highways and provided for a Highways Fund. The Commissioner is virtually empowered to determine upon which main roads he will spend the moneys available; in doing which he has to take into account (a) the moneys voted or likely to be voted by Parliament for main roads; (b) whether the road is or will be the main trunk route (i) connecting with its market or nearest port or railway station any large producing area or any area capable of becoming in the near future a large producing area; (ii) connecting two or more large producing areas, or areas capable of becoming in the near future large producing areas, or between two or more large centres of population; (iii) between the capital and any large producing area or any large centre of population; (iv) between the capitals of this State and any other State; and (c) whether the area through which the road passes is, or in the near future will be sufficiently served by a railway or railways.

After providing for certain fixed charges the Highways Fund is to be credited with the balance received from (a) licence fees and registration fees under the Road Traffic Act 1934-44; (b) fees for hawkers' licences; and (c) all loans raised and appropriated for roads. All moneys received by the State from the Commonwealth under the Federal Aid Roads scheme are also expended by the Commissioner of Highways under the general provisions of the Highways Act.

(ii) *Length of Roads.* The total length of roads in use for general traffic within local governing areas at 30th June, 1944, was 52,118 miles, of which 22 miles were paved with wood or stone, 248 were bituminous concrete, 1,812 bitumen penetration, 14,411 bitumen surfaced, metalled or gravelled, 8,515 formed only, and 27,110 unformed. At 30th June, 1944, the Commissioner was maintaining departmentally about 2,220 miles of improved main roads.

(iii) *Receipts and Payments.* The following table shows particulars of receipts and payments during 1942-43 and 1943-44 of funds controlled by the Highways and Local Government Department. Comparable figures for earlier years are not available.

STATE ROADS (ALL FUNDS COMBINED), SOUTH AUSTRALIA: RECEIPTS AND PAYMENTS.

Item.	1942-43.	1943-44.
RECEIPTS.		
	£	£
Motor Vehicle Registrations, Fees, Fines, etc. ..	532,310	541,088
Federal Aid Roads	180,706	203,292
Commonwealth Defence Road Works	14,898	6,079
Recoups—Local and Semi-governmental Authorities	1,731	5,900
Suspense Accounts—Plant, Machinery, etc. ..	100,829	..
Other	3,623	3,110
Total	834,097	759,469
PAYMENTS.		
	£	£
Construction of Roads and Bridges	126,503	210,001
Maintenance	116,125	129,958
Interest, Sinking Fund and Exchange	188,307	186,677
Grants to Local and Semi-governmental Authorities	120,452	141,318
Administration	31,160	31,434
Suspense Accounts .. .. .	..	13,806
Other	1,363	1,494
Total	583,910	714,688

(iv) *Post-war Road Proposals.* A programme has been prepared of road works proposed to be carried out during the period of five years after cessation of hostilities. This provides for the reconstruction of approximately 2,850 miles of main roads throughout the State at an estimated cost of more than £3,000,000, the greater proportion of which will be provided from motor vehicle taxation.

5. *Western Australia.*—(i) *General.* In Western Australia the construction, maintenance and management of roads, streets and bridges are the functions of Municipalities and Road Boards.

Certain principal highways and developmental roads are proclaimed main roads under the control of the Commissioner of Main Roads, appointed under the Main Roads Act 1930. At 30th June, 1944, the length of "Declared Main Roads" was 3,062 miles. The total known length of roads in existence in the various Road Districts at 30th June, 1943 was 71,449 miles of which 2,040 miles were bituminous, 4 concrete, 329 granite, limestone or blast furnace slag water-bound, 9,205 gravel water-bound, 202 of other constructed surfaces, 25,202 formed only, and 34,467 unprepared but used for general traffic. The length of unprepared roads is incomplete as information is not available in several Road Districts.

(ii) *Receipts and Payments.* The following table shows the combined transactions of the Main Roads Contributions Trust Account, the Metropolitan Traffic Trust Account, the Transport Co-ordination Fund and the Federal Aid Roads Agreement Account during the years ended 30th June, 1939 and 1941 to 1944.

ROAD FUNDS, WESTERN AUSTRALIA: RECEIPTS AND PAYMENTS.

Item.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
RECEIPTS.					
	£	£	£	£	£
Motor Vehicle Licence Fees and Permits—					
Metropolitan Traffic Trust Account	197,951	181,298	149,029	152,913	150,228
Transport Co-ordination Fund	21,011	23,985	28,153	31,267	31,940
Commonwealth Grant—Federal Aid Roads	823,162	678,617	421,342	320,043	334,017
Other	1,958	920	643	1,227	1,770
Total	1,044,082	884,820	599,167	505,450	517,955
PAYMENTS.					
	£	£	£	£	£
Road Construction, Maintenance, Surveys, etc.	922,756	538,586	261,295	167,188	190,591
Distributions to Local and Statutory Authorities	143,544	130,510	95,482	116,183	115,415
National Debt Commission Sinking Fund	17,623	17,623	17,623	17,623	..
Transfer to State Consolidated Revenue .. .. .	..	..	..	26,861	28,942
Interest, Sinking Fund and Premiums—State Treasury	7,616	7,620	7,616	7,616	7,616
Administration, Plant, etc.	52,176	59,136	46,762	35,519	25,103
Other	1,558	1,637	2,219	2,721	2,563
Total	1,145,273	755,112	430,997	373,711	370,230

The foregoing table does not include expenditure on roads from loan fund, the total amounts expended therefrom being shown on page 591.

6. *Tasmania.*—(i) *Length and Description of Roads.* At 30th June, 1942, there were 9,406 miles of roads in Tasmania, comprising 618 of bitumen or oil-sprayed, 5,147 metalled and gravelled, 2,274 formed, and 1,367 grubbed and cleared. Of the total length, 1,413 miles were State highways.

(ii) *Construction.* In Tasmania the cost of construction of roads and bridges is borne almost entirely by the State Government. Half the proceeds of the sale of land has been applied to form a Crown Lands Fund for the construction of roads to

new holdings. This fund has more than met the demands on it, and expenditure therefrom since 1918 has been limited to £10,000 annually, the balance being used for redemption of debt.

(iii) *Maintenance.* The maintenance of roads, other than State highways, is undertaken by the municipalities out of their own revenues. All bridges costing over £50 are maintained by the State Government. The maintenance of State highways was formerly provided for by the State Highways Act 1929, which created the State Highways Trust Fund to which was paid from Consolidated Revenue a sum equal to the amount of all motor taxes collected in the immediately preceding financial year and paid into the Treasury, less 2 per cent. Under the Transport Act 1938, which came into operation on 1st July, 1939, the Transport Commission was constituted to co-ordinate, regulate, control, and improve the means of, and facilities for transport by road, rail or air within the State. Revenues at its disposal for road and motor traffic purposes are the Federal Aid Roads Grant, motor vehicle registration fees, and tax and licensing fees for drivers and public motor vehicles.

(iv) *Receipts and Payments.* The table hereunder shows particulars of the receipts and payments of the combined Road Fund and Federal Aid Roads Trust Fund under the control of the Transport Commission since its inception on 1st July, 1939:—

ROAD FUNDS, TASMANIA: RECEIPTS AND PAYMENTS.

Item.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.
RECEIPTS.					
	£	£	£	£	£
Motor Vehicle Registrations, Drivers' Licences and Motor Tax	193,165	191,860	164,031	179,361	194,306
Federal Aid Roads	220,241	172,421	108,017	76,448	87,271
Hire of Plant .. ..	..	..	..	16,104	15,628
Miscellaneous	719	3,219	4,520	6,489	9,664
Total	414,125	367,500	276,568	278,402	306,869
PAYMENTS.					
	£	£	£	£	£
Construction and Reconstruction of Roads	127,929	134,264	68,093	34,292	29,733
Maintenance and Improvement of State Highways	113,199	109,787	101,648	102,960	120,503
Renewals and Repairs of Bridges and Maintenance of Jetties ..	22,467	21,415	18,190	18,474	31,811
Other Road Works	2,995	2,890	85	47	709
Other Works connected with Transport	5,748	11,618	8,844	7,735	8,045
Administration	15,053	16,480	16,007	13,981	14,893
Miscellaneous	31,894	32,469	30,513	25,418	62,145
Total	319,285	328,923	243,380	202,907	267,839

The amounts expended by the Department of Public Works, which are not included above, may be ascertained from the table on page 591.

7. *Summary of Net Loan Expenditure on Roads and Bridges.*—Figures showing the total expenditure on roads and bridges in the States are not available. The following table shows the annual net loan expenditure on roads and bridges by the central Government in each State during the years 1938-39 and 1940-41 to 1943-44, together with the aggregate amounts of expenditure up to 30th June, 1944. The net loan expenditure by the Government is not available for Tasmania and the figures given in the following table represent the actual amounts expended by the Department of Public Works, including sums for unemployment relief.

ROADS AND BRIDGES : NET LOAN EXPENDITURE.

Year ended 30th June—	N.S.W.	Victoria.(a)	Q'land.(b)	S. Aust.(c)	W. Aust.	Tasmania.	Total.
	£	£	£	£	£	£	£
1939 ..	1,850,480	Cr. 22,502	357,252	199,900	144,860	140,770	2,670,760
1941 ..	148,853	Cr. 30,366	475,421	52,000	37,932	44,856	728,696
1942 ..	606,611	Cr. 28,684	529,448	Cr. 16,000	Cr. 13	41,284	1,132,646
1943 ..	10,184	Cr. 30,399	Cr. 12,627	Cr. 17,000	..	19,540	Cr. 30,302
1944 ..	Cr. 68,817	Cr. 30,619	163,781	Cr. 16,000	..	29,994	78,339
Total to							
30/6/44	20,856,419	12,645,957	6,664,008	3,842,145	3,183,327	5,822,653	53,014,509

(a) Represents expenditure from loan and on account of loan. (b) Amounts include relative expenditure by the Public Estate Improvement Branch. (c) Excludes credits arising from cancellation of securities redeemed from Sinking Fund. (d) Gross loan expenditure.

The loan expenditure given above does not represent the total expenditure on roads and bridges. It relates for the most part to capital expenditure on new works, but it must be supplemented by similar expenditure from loan funds of local bodies, Federal grants and unemployment relief moneys, and further account must be taken of expenditure on maintenance which is mainly defrayed from the current revenues. For information on local government revenue and expenditure in respect of roads see §3, para. 2 following.

§ 3. Local Government Authorities.

1. Area, Population and Value of Ratable Property.—(i) *New South Wales.* For purposes of local government the whole of the Eastern and Central land divisions and a small portion of the sparsely populated Western division have been divided into municipalities (cities and principal towns) and shires (mainly large rural areas, some of which embrace important towns). At the end of 1943 the area incorporated was 184,023 square miles, or nearly three-fifths of the total area of the State.

The operations of the Capital City are regulated by the Sydney Corporation Act, and of other municipalities and shires by the Local Government Act. Councils elected for a term of three years comprise: City of Sydney, 20 aldermen; City of Greater Newcastle, 21 aldermen; other municipalities, 6 to 15 aldermen; shires, 6 to 9 councillors.

Municipalities and shires may combine to form county councils for the establishment and conduct of services of joint benefit, e.g., electricity, water, sewerage. There were 11 county councils at 31st December, 1943.

The area, population and value of ratable property in the incorporated areas at 31st December, 1943, are given below. The valuations relate to ratable property only and exclude Government and other non-ratable property, the value of which is not inconsiderable in the aggregate.

LOCAL GOVERNMENT AUTHORITIES, NEW SOUTH WALES : AREA, POPULATION AND VALUE OF RATABLE PROPERTY AT 31st DECEMBER, 1943.

Local Bodies.	Number.	Area.	Population. (a)	Value of Ratable Property.		
				Unimproved Capital Value.	Improved Capital Value.	Assessed Annual Value.(b)
		Acres.		£'000.	£'000.	£'000.
Capital City ..	1	3,220	84,460	50,321	174,878	7,869
Suburban Municipalities	48	151,283	1,282,060	107,501	347,549	28,496
Total Metropolis ..	49	154,503	1,366,520	157,822	522,427	36,365
Greater Newcastle ..	1	22,945	127,660	8,952	30,749	2,525
Other Municipalities ..	106	1,152,677	510,700	28,436	105,397	8,654
Shires ..	138	116,444,897	809,480	148,024	(c)	(c)
Grand Total ..	294	117,775,022	2,814,360	343,234	(c)	(c)

(a) As at 31st December, 1942.

(b) Nine-tenths Annual Rental Value.

(c) Not available.

(ii) *Victoria*. Local Government is established throughout the State, the various divisions being termed cities, towns, boroughs, or shires. The only unincorporated areas are French Island in Western Port Bay and two other smaller islands. Melbourne and Geelong were incorporated under special statutes prior to the establishment of a general system of local government, but are now subject to several provisions of the Local Government Act.

The financial years of the cities of Melbourne and Geelong, which, prior to 1938, ended on 31st December and 31st August respectively, now end, with those of all other municipalities, on 30th September. The area, population and value of ratable property in the incorporated areas are given below :—

LOCAL GOVERNMENT AUTHORITIES, VICTORIA : AREA, POPULATION AND ESTIMATED VALUE OF RATABLE PROPERTY.

Local Bodies.	Number.	Area 1940-41.	Population 1942.	Estimated Value of Ratable Property 1942-43.	
				Improved Capital Value.	Annual Value.
Metropolitan—					
Capital City	1	Acres, 7,740	96,000	£'000. 101,557	£'000. 5,078
Other(a)	28	160,906	1,019,200	309,148	17,070
Total	29	168,646	1,115,200	410,705	22,148
Outside Metropolitan Area ..	168	56,074,895	854,780	307,721	15,449
Grand Total	197	56,243,541	1,969,980	718,426	37,567

(a) Includes the whole of the Shire of Braybrook and the whole of the City of Heidelberg.

(iii) *Queensland*.—The whole of the State (except certain islands along the coast, the Dawson Valley Irrigation area and the Somerset Dam area) is incorporated into cities, towns and shires under the Local Authorities Act 1902 and its amendments. The following table gives particulars of the area, population, and value of ratable property in the incorporated areas for the year 1939-40 :—

LOCAL GOVERNMENT AUTHORITIES, QUEENSLAND : AREA, POPULATION AND VALUE OF RATABLE PROPERTY, 1939-40.

Local Bodies.	Number.	Area.	Population. (a)	Unimproved Capital Value.
		Acres.		£'000.
Capital City	1	246,400	335,520	21,134
Outside Metropolitan Area ..	143	428,446,720	682,957	51,703
Total	144	428,693,120	1,018,477	72,842

(a) At 31st December, 1939.

(iv) *South Australia*. The settled portion of South Australia is incorporated, being mostly under municipal corporations in the larger cities and towns, and district councils in the agricultural areas.

The following table gives the area, population and value of ratable property in incorporated areas for the year ended 30th June, 1943.

LOCAL GOVERNMENT AUTHORITIES, SOUTH AUSTRALIA : AREA, POPULATION AND VALUE OF RATABLE PROPERTY, 1943.

Local Bodies.	Number.	Area.	Population.	Value of Ratable Property.		
				Unimproved Capital Value.	Improved Capital Value.	Annual Value.
Metropolitan—		Acres.		£'000.	£'000.	£'000.
Capital City ..	1	3,772	33,000	12,100	29,000	1,451
Other	20	99,215	327,000	(a)	81,000	3,893
Total ..	21	102,987	360,000	(a)	110,000	5,344
Outside Metropolitan Area ..	121	34,400,079	240,000	(a)	84,000	4,336
Grand Total ..	142	34,503,066	600,000	(a)	194,000	9,680

(a) Not available.

(v) *Western Australia.* In this State, Local Government is carried on by means of (a) Municipalities, and (b) District Road Boards. Certain functions are delegated to health boards, whose personnel, in most cases, coincides with those of the municipalities and district road boards. The following table gives particulars of the area, population and value of ratable property in incorporated areas for the year ended October, 1944 for Municipalities, and the year ended June, 1944 for District Road Boards.

LOCAL GOVERNMENT AUTHORITIES, WESTERN AUSTRALIA : AREA, POPULATION AND VALUE OF RATABLE PROPERTY, 1944.

Local Bodies.	Number.	Area.	Population. (a)	Value of Ratable Property.		
				Unimproved Capital Value.	Improved Capital Value.	Annual Value.
Municipalities—		Acres.		£'000.	£'000.	£'000.
Metropolitan—						
Capital City ..	1	15,251	91,691	(b)	31,000	1,672
Other	8	11,374	70,318	(b)	13,618	706
Outside Metropolitan Area ..	12	32,768	47,702	(b)	7,009	519
Total ..	21	59,393	209,711	(b)	51,627	2,897
District Road Boards—						
Metropolitan ..	11	(c) 322,880	90,885	3,928	(b)	6
Outside Metropolitan Area ..	116	624,206,527	167,065	17,631	(b)	507
Total ..	127	624,529,407	257,950	21,559	(b)	513
Grand Total ..	148	624,588,800	467,661	(b)	(b)	3,410

(a) Estimated population: Municipalities, 31st October, 1944; District Road Boards, 30th June, 1944. (b) Not available. (c) Includes Swan District (235,264 acres), of which 8,064 acres only are in the Metropolitan Area.

The method of valuation is not identical in the case of all district road boards, as in some the assessment is based on the unimproved capital value and in others partly on the unimproved capital value and partly on the annual value. The amounts given are the totals for the areas rated on each valuation, and are not a function of each other.

(vi) *Tasmania.* The whole State is divided into municipal districts, Hobart and Launceston being incorporated under separate Acts. The following table gives particulars of the area, population and value of ratable property in incorporated areas for the year ended June, 1944.

LOCAL GOVERNMENT AUTHORITIES, TASMANIA : AREA, POPULATION AND VALUE OF RATABLE PROPERTY, 1943-44.

Local Bodies.	Number.	Area.	Population. (a)	Value of Ratable Property.		
				Unimproved Capital Value.	Improved Capital Value.	Annual Value.
Metropolitan—		Acres.		£'000.	£'000.	£'000.
Capital City ..	1	17,760	54,215	5,163	15,299	947
Other(b) ..	2	99,000	17,250	1,118	3,361	222
Total ..	3	116,760	71,465	6,281	18,660	1,169
Outside Metropolitan Area ..	46	16,661,240	172,591	17,177	40,307	2,211
Grand Total ..	49	16,778,000	244,056	23,458	58,967	3,380

(a) As at 31st December, 1943.

(b) Includes the whole of the Municipalities of Clarence and Glenorchy.

2. **Revenue and Expenditure.**—As the result of resolutions adopted at a conference of Statisticians in 1936 the financial statistics of Local Government Authorities were compiled in the various States on a more comparable basis than formerly. The collection of this information was suspended in most States for the duration of the war and has not yet been fully resumed. Consequently, the table below shows figures for a variety of years, although the latest figures available have been included in each case.

In the returns of revenue and expenditure in the following tables the proceeds from loans and expenditure thereof have been excluded, as have the operations of business undertakings controlled by the various Local Government Authorities. The profits resulting from the working of these undertakings, where taken into general revenue, have been included.

LOCAL GOVERNMENT AUTHORITIES : REVENUE.

Particulars.	N.S.W., 1939.(a)	Victoria, 1942-43.	Q'land., 1939-40.	S. Aust., 1942-43.	W. Aust., 1940-41.	Tas., 1943-44.
Taxation—	£	£	£	£	£	£
Rates (net) ..	5,558,328	4,105,388	2,793,272	976,39	680,140	415,305
Penalties ..	102,600	27,595			161	343
Licences ..	113,162	54,618	33,191	24,855	19,143	9,396
Total ..	5,774,290	4,187,601	2,826,463	1,001,251	699,444	425,044
Public Works and Services—						
Sanitary and garbage services	462,270	171,584	404,459	24,864	77,299	2,482
Council properties ..	571,063	522,813	341,649	89,077	81,299	49,326
Street construction ..	304,584	103,202	26,002	31,508	10,494	2,420
Other ..	205,302	65,621	25,879	50,676	6,232	9,040
Total ..	1,543,219	863,220	797,989	196,215	175,324	63,268
Government Grants—						
Unemployment relief ..	61,671,758	8,797	29,501	7,983	65,963	5,754
Roads ..	1,371,526	84,417	307,034	136,102		
Other ..	316,898	190,037	396,678	3,550	4,735	3,167
Total ..	3,360,182	283,251	733,213	147,635	70,698	8,921
Profits from Business Under- takings (e) ..	..	234,288	15,633	..	77,256	..
Fees and fines ..	..	12,654	172,793	{ 11,103 47,160	{ 2,007 401,592	32,653
All other ..	..	60,968				
Total ..	10,677,691	5,641,982	4,546,091	1,403,364	1,426,321	529,886

(a) Figures are on an income and expenditure basis as distinct from those of other States which are on a cash basis.

(b) Includes grants for specific work mainly to relieve unemployment.

(c) Includes £10,092 reimbursements from Highways Department.

(d) Includes £330,019 for Sewerage and Drainage.

(e) Excludes excess of revenue over expenditure of business undertakings not taken to general revenue:—New South Wales, £733,484; South Australia, £14,954; Tasmania, £27,385.

(f) Includes £338,898 collections in connexion with vehicle registrations.

Expenditure of industrial undertakings, including that connected with their debt services, is excluded from the following table.

LOCAL GOVERNMENT AUTHORITIES : EXPENDITURE.

Particulars.	N.S.W., 1939.(a)	Victoria, 1942-43.	Q'land., 1939-40.	S. Aust., 1942-43.	W. Aust., 1940-41.	Tas., 1943-44.
	£	£	£	£	£	£
General Administration ..	681,586	702,638	314,570	154,113	129,596	63,102
Debt Services (excluding business undertakings)—						
Interest	891,339	451,189	610,716	31,349	95,436	28,758
Redemption	1,135,400	449,914	429,794	65,201	154,405	29,976
Exchange	(b)	..	77,289	..	2,224	3,123
Other	4,945	9,336	930	..	120	318
Total	2,031,684	910,439	1,118,729	96,550	252,185	62,175
Public Works and Services—						
Roads, streets and bridges ..	5,266,369	1,407,958	1,273,338	526,146	470,636	212,618
Health administration ..	145,374	212,710	102,211	109,291	37,831	18,095
Sanitary and garbage services ..	641,924	346,002	360,901	88,118	103,968	30,928
Street lighting	352,114	139,358	72,824	58,111	50,133	23,999
Council properties	1,123,258	769,125	325,466	125,283	220,640	63,305
Other	304,925	112,466	(c) 514,524	57,350	18,525	11,924
Total	7,833,964	2,987,619	2,649,264	964,299	901,733	360,869
Grants—						
Fire brigades	118,611	83,919	26,164	(d)	25,809	0,023
Hospitals and ambulances ..	..	..	303,775	(d)	4,590	362
Other charities	22,556	63,001	500	4,770	..	2,272
Other	(e) 205,780	(f) 205,074	11,638	1,740	7,281	2,304
Total	346,947	351,994	342,077	6,510	37,680	10,961
All other	(g) 238,466	31,700	114,732	657	38,253	32,424
Total	10,655,715	4,984,390	4,539,372	1,222,129	1,359,447	529,531

(a) Figures are on an income and expenditure basis as distinct from those of other States, which are on a cash basis. (b) Included with interest. (c) Includes £360,483 for Sewerage and Drainage. (d) Compulsory contributions, included under Public Works and Services—Hospitals, £56,516, Fire Brigades, £19,735. (e) To Main Roads Department. (f) Includes £100,873 to Country Roads Board. (g) Includes deductions to offset duplication in the figures above caused by expenditure on the purchase of assets and depreciation of same, etc.

3. New Money Loan Raisings, Debt and Interest Payable.—Particulars are given in the following table of new money loan raisings during the year 1940-41 and the amount of debt at 30th June, 1941, together with the interest payable annually thereon. The table includes details for those boards or statutory authorities administering works or services such as water supply, sewerage, electricity, roads, tramways, harbours, fire brigades, trading activities, marketing agencies, etc., which are additional to those of the Local Government Authorities referred to above.

**LOCAL AND SEMI-GOVERNMENTAL AUTHORITIES: NEW MONEY LOAN
RAISINGS, DEBT, AND INTEREST PAYABLE, 1940-41.**

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
LOCAL GOVERNMENT AUTHORITIES.							
New Money Loan Raisings(a)—	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
From Government ..	11	4	289	11	..	..	315
From Public ..	1,342	347	1,560	10	89	146	3,494
Total ..	1,353	351	1,849	21	89	146	3,809
Funds Provided for Redemption(a)—							
Government Loans ..	295	40	361	30	..	11	737
Loans due to Public ..	1,685	600	643	52	231	137	3,343
Total ..	1,980	640	1,004	82	231	148	4,085
Debt—							
Due to Government ..	1,236	548	10,073	80	6	315	12,258
Due to Banks (Net Overdraft) ..	156	422	349	36	22	2	987
Due to Public Creditor (b) ..	37,727	12,211	22,464	760	3,031	3,075	79,268
Total (b) ..	39,119	13,181	32,886	876	3,059	3,392	92,513
Maturing Overseas (b)(c) ..	7,320	..	8,869	..	552	800	17,541
Interest Payable (b) ..	1,738	577	1,517	39	134	148	4,153

SEMI-GOVERNMENTAL AND OTHER PUBLIC AUTHORITIES.

New Money Loan Raisings(a)—	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
From Government ..	..	474	735	568	..	..	1,777
From Public ..	4,129	1,196	232	1	13	..	5,571
Total ..	4,129	1,670	967	569	13	..	7,348
Funds Provided for Redemption(a)—							
Government Loans ..	214	451	199	149	2	21	1,036
Loans due to Public ..	638	1,623	85	6	12	12	2,376
Total ..	852	2,074	284	155	14	33	3,412
Debt—							
Due to Government ..	22,850	4,578	9,798	7,934	218	295	45,673
Due to Banks (Net Overdraft) ..	296	51	1,312	33	1	..	1,693
Due to Public Creditor (b) ..	61,202	63,392	3,761	885	117	497	130,354
Total (b) ..	84,348	68,521	14,871	8,852	336	792	177,720
Maturing Overseas (b)(c) ..	5,389	6,639	..	..	..	..	12,028
Interest Payable (b) ..	3,116	2,730	579	349	16	33	6,823

(a) Excludes Loans raised and entirely redeemed within the year. (b) Includes Debt or Interest payable in London and New York, which is in £ stg. Dollars have been converted to £ stg. at the rate of 4.8665 dollars to £1 stg. (c) Included in Debt figures above.

§ 4. Water Supply, Sewerage and Drainage.

1. New South Wales.—(i) *General.* The largest two domestic water supply and sewerage systems are controlled by statutory boards consisting of a president and a vice-president appointed by the State Government and other members elected by local councils. These are (a) the Metropolitan Water, Sewerage and Drainage Board, which administers the systems in Sydney and surrounding districts and territory extending along the South Coast to Wollongong and Port Kembla, and (b) the Hunter District Water Board, serving the Newcastle area. At Broken Hill a similar board includes a representative of the mining companies. Other systems, apart from irrigation projects and two water storage systems connected by the State Government, are controlled by municipal, shire and county councils.

(ii) *Waterworks (a) Metropolitan.* The storage reservoirs of the metropolitan system, with a combined capacity of 125,591 million gallons, drain a catchment area of 376 square miles. Water is drawn also from the Warragamba River, with a catchment of 3,383 square miles. This scheme is in the first stage of development; a low weir has been constructed and the water is pumped from the normal river flow, the maximum daily off-take being 40 million gallons. At 30th June, 1944, there were 93 service reservoirs with a combined capacity of 537.6 million gallons and the length of mains was 4,589.7 miles.

(b) *Newcastle.* The water supply is drawn from two sources (1) The Chichester Reservoir, with a storage capacity of about 5,000 million gallons and draining a catchment of 76 square miles, and (2) The Tomago Sandbeds, which extend northerly along the coast towards Port Stephens. About 30 square miles of water-bearing sand at present being tapped is expected to give a continuous yield of 15 million gallons a day. Service reservoirs distributed throughout the Water Supply District number 42, with a total storage capacity of 105 million gallons. The total length of mains at 30th June, 1944, was 1,055 miles.

(c) *Water Supplied, etc.* The following table gives the number of houses, the estimated population supplied, and other details for the years 1942-43 and 1943-44:—

WATERWORKS, SYDNEY(a) AND NEWCASTLE : WATER SUPPLIED.

System.	Number of Premises Supplied.	Estimated Population Supplied.	Average Daily Supply.	Total Supply for the Year.	Average Daily Supply.	
					Per Property.	Per Head of Estimated Population.
			Million Gallons.	Million Gallons.	Gallons.	Gallons.
Sydney (a)—						
1942-43 ..	374,717	1,546,000	83.6	30,530	223	54.08
1943-44 ..	375,285	1,581,000	99.0	36,254	264	62.62
Newcastle—						
1942-43 ..	52,121	208,484	16.3	5,933	311	77.28
1943-44 ..	52,320	209,280	15.8	5,791	302	74.96

(a) Includes part of South Coast.

(iii) *Sewerage and Drainage. (a) Metropolitan.* The Sydney sewerage system consists of three main outfalls, discharging into the Pacific Ocean.

(b) *Newcastle Sewerage Works.* The main sewerage system of the Newcastle area discharges into the Pacific Ocean at Merewether Gulf. In some of the outlying districts treatment works have been installed.

(c) *Particulars of Services.* The following table supplies details of sewerage services and stormwater drains as at 30th June, 1943 and 1944.

SEWERAGE AND DRAINAGE : SYDNEY(a) AND NEWCASTLE.

At 30th June—		System.	Premises Drained.	Population Served.	Length of Sewers.	Length of Storm-water Drains.
			No.		Miles.	Miles.
1943 ..	..	{ Sydney (a) ..	278,922	1,151,000	2,754.7	88.0
		{ Newcastle ..	34,989	140,000	571.6	37.1
1944 ..	..	{ Sydney (a) ..	280,737	1,158,000	2,756.1	88.9
		{ Newcastle ..	36,153	144,500	572.0	35.6

(a) Includes part of South Coast.

(d) *Finances.* The following statement shows the revenue and expenditure on account of the services of waterworks, sewerage and drainage during 1942-43 and 1943-44.

WATERWORKS, SEWERAGE AND DRAINAGE: SYDNEY(a) AND NEWCASTLE.

Item.	Capital Debt.	Revenue.	Expenditure.				Surplus or Deficit.
			Working Expenses, including Renewals Reserve.	Interest and Exchange.	Sinking Fund.	Total Expenditure.	
1942-43.							
Sydney (a)—	£	£	£	£	£	£	£
Water ..	28,148,084	2,090,832	760,005	1,129,459	191,881	2,081,345	+ 9,487
Sewerage ..	17,307,729	1,341,557	493,290	725,219	112,117	1,330,626	+ 10,931
Drainage ..	863,263	71,699	18,644	38,943	4,870	62,457	+ 9,242
Total ..	46,319,076	3,504,088	1,271,939	1,893,621	308,868	3,474,428	+ 29,660
Newcastle—							
Water ..	3,993,470	306,962	148,017	146,690	21,739	316,446	— 9,484
Sewerage ..	2,214,462	178,985	93,952	87,753	11,762	193,467	— 14,482
Drainage ..	115,308	18,294	9,681	5,775	668	16,124	+ 2,170
Total ..	6,323,240	504,241	251,650	240,218	34,169	526,037	— 21,796
1943-44.							
Sydney (a)—	£	£	£	£	£	£	£
Water ..	28,459,359	2,189,676	816,924	1,138,507	203,173	2,158,604	+ 31,072
Sewerage ..	17,243,266	1,370,968	523,897	722,853	115,843	1,362,593	+ 8,375
Drainage ..	862,256	73,996	24,751	38,817	4,930	68,498	+ 5,498
Total ..	46,564,881	3,634,640	1,365,572	1,900,177	323,946	3,589,695	+ 44,945
Newcastle—							
Water ..	4,136,886	312,340	148,890	148,855	24,057	321,802	— 9,462
Sewerage ..	2,233,755	185,680	98,194	89,039	12,421	199,654	— 13,974
Drainage ..	115,679	19,217	9,101	5,729	738	15,568	+ 3,649
Total ..	6,486,320	517,237	256,185	243,623	37,216	537,024	— 19,787

(a) Includes part of South Coast.

(iv) *Waterworks, Sewerage and Stormwater Drainage Works in Country Towns.** The capital indebtedness of the water and sewerage schemes in country towns controlled by local councils was £6,422,361 at 31st December, 1939, namely, £3,793,567 for water and £2,628,794 for sewerage. Of the foregoing amounts, £877,988 for water and £226,674 for sewerage are owing to the State Government. At 31st December, 1939, country waterworks were in operation or under construction in 82 municipalities and 37 shires, and country sewerage services in 50 municipalities and 10 shires. In addition, two county councils, each comprising four shires, had been formed to supply water to towns within the areas of constituent councils, but the work of construction was only in the initial stages at the end of 1939.

Two country water storage systems—South-west Tablelands and Junee—are administered by the Department of Public Works. These deliver water into service reservoirs for reticulation by Councils; only a small quantity is sold directly to private consumers. The capital indebtedness of these systems was £1,052,329 at 31st December, 1944.

* Excludes the area of operation of the Hunter District Water Board (Newcastle).

A water supply system at Broken Hill was transferred from the control of the then Department of Works and Local Government (now the Department of Public Works) to a special Board on 1st January, 1939. Capital debt owing to the State was written off and the Board commenced to raise loans on its own behalf to finance the construction of water amplification works and sewerage services. In 1942 income amounted to £66,164 and expenditure to £56,046; the debenture debt was £248,930 at 31st December, 1942.

2. *Victoria.*—(i) *A. Melbourne and Metropolitan Board of Works.* All land within a radius of 13 miles of the Post Office at the corner of Bourke and Elizabeth streets, Melbourne, and the remaining portions of the Cities of Mordialloc, Moorabbin and Numawading and certain portions of the Shire of Dandenong (all of which portions are outside such radius), but excluding a portion of the Shire of Werribee within such radius, are included in the metropolis for water supply, sewerage, main drainage and river improvement purposes. This territory has an area of 443 square miles and comprises 27 cities and part of one other city and 10 other shires.

A summary of the combined financial results of the three functions of the Board—water supply, sewerage and drainage—are shown below in respect of the years 1942-43 and 1943-44:—

MELBOURNE AND METROPOLITAN BOARD OF WORKS: REVENUE AND EXPENDITURE.

			Expenditure.					
Year.	Capital Debt.	Revenue.	Working Expenses	Interest and Exchange	Sinking Fund.	Deprecia- tion, Re- newals, Reserves and Other Funds.	Other.	Total.
	£	£	£	£	£	£	£	£
1942-43	26,113,225	2,439,842	470,187	1,348,182	65,283	561,927	113,464	2,559,043
1943-44	26,029,165	2,183,201	539,572	1,262,413	65,073	562,472	59,945	2,489,475

In the following tables, showing particulars of the finances of each of the various services, exchange, sinking fund, depreciation, renewal, etc., charges against General Revenue Account amounting to £733,901 in 1943-44 (£787,087 in 1942-43) have not been included.

B. *Melbourne Water Supply.* (a) *Number of Houses, Population, and Quantity of Water Supplied.* The following table gives particulars of services for 1942-43 and 1943-44. The rate levied was 6d. in the £1 on the net annual value of the property served.

WATER SUPPLY, MELBOURNE: PARTICULARS OF SERVICES.

Year.	Number of Houses Supplied.	Estimated Population Supplied.	Average Daily Consumption.	Total Water Consumption for the Year.	Average Daily Consumption.		Length of Mains, Reticulation, etc.
					Per House.	Per Head of Estimated Population.	
			Million Gallons.	Million Gallons.	Gallons.	Gallons.	Miles.
1942-43 ..	303,536	1,205,038	91.1	33,239	300.01	75.57	3.465
1943-44 ..	304,649	1,209,457	95.3	34,862	312.66	78.76	3.478

(b) *Capital Cost, Revenue, Working Expenses, Interest, etc., and Surplus.* The financial operations for the years 1942-43 and 1943-44 are given below. The total capital cost to 30th June, 1944, was £13,106,862 (£13,038,530 to 30th June, 1943).

WATER SUPPLY, MELBOURNE : FINANCES.

Year.	Capital Cost for Year.	Revenue.	Working Expenses.	Percentage of Working Expenses on Revenue.	Interest.	Surplus.
	£	£	£	%	£	£
1942-43 ..	64,304	1,093,580	201,995	18.47	568,183	323,402
1943-44 ..	86,309	1,125,150	239,173	21.26	544,288	341,689

C. *Melbourne Sewerage.* (a) *Number of Houses Connected, etc.* Particulars of services for 1942-43 and 1943-44 are given below. The rate levied was 1s. 1d. in the £1 on the net annual value of the property served.

SEWERAGE, MELBOURNE : PARTICULARS OF SERVICES.

Year.	Number of Houses for which Sewers are Provided.	Estimated Population for which Sewers are Provided.	Average Daily Pumping.	Total Sewage Pumped for the Year.	Average Daily Pumping.		Length of Sewers, etc.
					Per House.	Per Head of Estimated Population.	
			Million Gallons.	Million Gallons.	Gallons.	Gallons.	Miles.
1942-43 ..	287,146	1,139,970	55.6	20,293	193.6	48.8	2,712
1943-44 ..	288,100	1,143,757	55.4	20,292	192.4	48.5	2,719

(b) *Capital Cost, Revenue, Working Expenses, Interest, etc., and Surplus.* The financial operations for the years 1942-43 and 1943-44, including those of the Metropolitan Sewage Farm, are given below. The total capital cost to 30th June, 1944, was £14,755,595 (£14,743,790 to 30th June, 1943).

SEWERAGE, MELBOURNE : FINANCES.

Year.	Capital Cost for Year.	Revenue.	Working Expenses.	Percentage of Working Expenses on Revenue.	Interest.	Surplus.
	£	£	£	%	£	£
1942-43 ..	19,525	1,244,757	250,196	20.08	669,677	324,884
1943-44 ..	68,632	1,255,592	278,167	22.14	614,897	362,528

(c) *Metropolitan Sewage Farm.* The total area of the farm at 30th June, 1944, was 23,793 acres. The following table gives details in connexion therewith for the years 1942-43 and 1943-44. The total capital cost to 30th June, 1944, was £1,339,292 (£1,303,465 to 30th June, 1943).

METROPOLITAN SEWAGE FARM : FINANCES.

(Included in Sewerage Finances.)

Year.	Capital Cost for Year.	Revenue.	Cost of Sewage Disposal.	Other Working Expenses.	Interest.	Net Cost of Sewage Purification.
	£	£	£	£	£	£
1942-43 ..	Cr. 29,376	64,683	48,683	21,712	57,514	63,226
1943-44 ..	36,221	59,904	54,960	28,142	54,479	77,677

(d) *Disposal of Night-soil from Unsewered Premises.* The total number of pans cleaned by the Board at its depots at Brooklyn, Campbellfield and Moorabbin, where the night-soil was disposed of by burial, was 608,704 for the year 1943-44.

D. Melbourne Drainage and Rivers—*Capital Cost, Revenue, Working Expenses, Interest and Surplus.* The following table gives details in connexion therewith for the years 1942-43 and 1943-44. The total capital cost to 30th June, 1944, was £1,738,229.

DRAINAGE AND RIVERS, MELBOURNE : FINANCES.

Year.	Capital Cost for Year.	Revenue.	Working Expenses.	Percentage of Working Expenses on Revenue.	Interest.	Surplus.
	£	£	£	%	£	£
1942-43	16,176	101,812	18,303	17.98	63,909	19,600
1943-44	11,365	102,761	22,534	21.93	56,817	23,410

(ii) *Geelong Waterworks and Sewerage Trust.* (a) *General.* The Geelong Waterworks and Sewerage Trust, constituted in 1908 and reconstituted under the Geelong Waterworks and Sewerage Act in 1910, consists of five commissioners. The amount of loan money which may be raised is limited to £900,000 for water supply undertaking, £760,000 for sewerage undertaking, and £270,000 for sewerage installation to properties under the deferred payment system. The population supplied is estimated by the Trust at 51,240.

(b) *Water Supply.* The catchment area is about 16,000 acres. The storage capacity of all the reservoirs is 2,738 million gallons. In addition, the State Rivers and Water Supply Commission has made available a supplementary supply of a minimum quantity of 515 million gallons of water per annum from the Bellarine Peninsula System. There are 320 miles of mains within the water supply area. The total expenditure on waterworks to 30th June, 1944, was £755,345. Expenditure for 1943-44 comprised £23,662 (£23,003 in 1942-43) on working expenses and £44,725 (£45,052 in 1942-43) on interest, sinking fund and reserves, and the revenue for the year 1943-44 was £66,966 (£67,815 in 1942-43). The sinking fund appropriations at June, 1944 amounted to £92,536 of which £81,150 had been expended in the redemption of loans. There is a water rate of 1s. in the £1 (with minima of five shillings for unbuilt-on land and one pound for tenements) on the net annual value of ratable properties. The Replacement and Contingencies Reserve (Water) amounted to £88,032.

(c) *Sewerage Works.* The sewerage scheme consists of a main outfall sewer to the ocean at Black Rock, about 9 miles from Geelong, and 13½ miles of main sewers and 146 miles of reticulation mains have been constructed. The drainage area is 9,571 acres, and the number of buildings within the drainage area is 12,712 and within the sewered areas 12,460, while 12,449 buildings have been connected with the sewers. The total

expenditure to 30th June, 1944 on sewerage works was £650,118, and on the cost of sewerage installation under deferred payment conditions £257,896, of which £283 is outstanding. The revenue in 1943-44 amounted to £45,122 (£44,689 in 1942-43) and the expenditure comprised £10,060 (£10,358 in 1942-43) on working expenses and £35,310 (£35,018 in 1942-43) on interest, sinking fund and reserves. Sinking fund appropriations at June, 1944, were £85,657 of which £82,902 had been expended in the redemption of loans. A general rate of 1s. 2d. in the £1 is levied on the net annual value of ratable properties. Replacement and Contingencies Reserves (Sewerage) amounted to £67,659.

(iii) *The Ballarat Water Commission and the Ballarat Sewerage Authority.* (a) *General.* The Ballarat Water Commission was constituted on 1st July, 1880, and the Ballarat Sewerage Authority on 30th November, 1920. The members of the Water Commission constitute the Sewerage Authority. The Commissioners number seven, three (one of whom is chairman) being appointed by the Government, and four being elected by the Council of the City of Ballarat.

(b) *Water Supply.* The Water Supply District embraces an area of about 27 square miles, containing a population of about 45,000. The total storage capacity of the six reservoirs is 2,332 million gallons.

The capital cost of construction of the waterworks was £713,370 to 31st December, 1944. The liabilities are loans due to the Government amounting to £263,034 at 31st December, 1944. The revenue for the year 1944 was £48,157 (£53,519 in 1943). Working expenses during 1944 amounted to £18,971 (£17,771 in 1943) and interest and other charges to £22,699 (£20,234 in 1943).

(c) *Sewerage.* The scheme as designed provides for a population of 90,000 persons. The capital cost of construction to 31st December, 1944, was £459,625. The method of sewage disposal is by sedimentation, oxidation and sludge digestion. One hundred and one sewered areas have been declared as at 1st January, 1944, comprising 9,817 tenements.

The scheme is financed by debenture-issue loans from various financial institutions, £513,090 having been provided up to 31st December, 1944, of which £103,919 has been redeemed, leaving a loan liability of £409,171 for constructional works. An expenditure of £187,122 was incurred for house connexions, the whole of which has been redeemed. Revenue during 1944 (1943 in brackets) amounted to £35,218 (£34,104) and expenditure, including £24,718 (£25,330) on interest and redemption, to £33,822 (£32,952).

(iv) *Bendigo Sewerage Authority.* The members of the Bendigo City Council constitute this Authority. The sewerage district comprises the populated area of the city of Bendigo. The works are completed and the expenditure to 30th September, 1944 was £343,070 for sewerage scheme and £188,444 for house connexions, excluding those tenements connected privately. The number of tenements connected to sewers was 6,559.

(v) *Sewerage in other Country Districts.* At the end of 1944, 38 sewerage authorities had been constituted under the provisions of the Sewerage Districts Acts and the systems were in operation in the following districts:—Ararat, Bairnsdale, Benalla, Castlemaine, Colac, Dandenong, Dimboola, Echuca, Hamilton, Horsham, Kerang, Kyabram, Kyneton, Mildura, Mornington, Morwell, Murtoa, Nhill, Portland, Shepparton, Swan Hill, Wangaratta, Warracknabeal, Warragul and Warrnambool. At Beechworth, Euroa, Lorne, Sale, Werribee, Wodonga and Yarram constitution operations were suspended for the duration of the war and the undertakings at Leongatha, Maffra, Traralgon and Yarrawonga have not been brought into operation.

(vi) *Water Supply in Country Towns and Districts.* Most of the country waterworks are controlled by the State Rivers and Water Supply Commission, but in some instances the control is by waterworks trusts or by municipal corporations.

The waterworks controlled by the State Rivers and Water Supply Commission at 30th June, 1944 included 35 large reservoirs and 224 subsidiary reservoirs and service basins with a total storage capacity of 537,000 million gallons (1,975,520 acre feet). Length of channels was 14,732 miles and of pipe lines 1,095 miles. The quantity of water delivered to water users during 1943-44 was 716,742 acre feet. The table below gives a summary of the Commission's finances for the years 1938-39 and 1940-41 to 1943-44 :—

STATE RIVERS AND WATER SUPPLY COMMISSION, VICTORIA : FINANCES.

Year..	Receipts.	Payments.					Total Loan Capital Expenditure to 30th June (a)
		Operating Expenses.	Interest on Capital Allotted.	Depreciation.	Redemption.	Total.	
	£	£	£	£	£	£	£
1938-39 ..	560,680	476,085	145,105	27,553	4,922	653,665	24,223,037
1940-41 ..	611,235	491,242	155,490	44,248	7,339	698,319	24,974,298
1941-42 ..	693,519	511,994	161,951	47,678	9,645	731,268	25,311,472
1942-43 ..	837,122	659,338	155,769	40,554	14,634	870,295	25,371,754
1943-44 ..	792,867	739,080	134,898	52,448	8,631	935,057	25,497,038

(a) Excludes Waterworks Trusts and Local Governing Bodies.

The financial operations of the State Rivers and Water Supply Commission form part of Consolidated Revenue Fund, but are included in this section for convenience. The major proportion of the interest payable is borne by the State and is additional to that shown above. The net expenditure borne by the State during 1943-44 was £1,115,422.

The following table gives particulars regarding waterworks under the control of trusts and municipal corporations for the year 1944 :—

COUNTRY WATERWORKS, VICTORIA : FINANCES.

Year.	Under Waterworks Trusts.				Under Municipal Corporations.			
	Number of Trusts.	Capital Cost.	Capital Indebtedness.	Current Interest Outstanding.	Number of Corporations.	Capital Cost.	Capital Indebtedness.	Current Interest Outstanding.
		£	£	£		£	£	£
1944 ..	116	3,082,973	1,651,631	13	17	941,017	418,207	325

3. Queensland.—(i) *The Metropolitan Works Board, Department of Works, Brisbane City Council.* (a) *General.* The whole of the water supply in the metropolitan area and the bulk supplies to the Cities of Ipswich and Redcliffe are filtered.

The total storage in the Brisbane River is 543 million gallons (available capacity 484 million gallons) the catchment area being approximately 4,000 square miles. In Lake Manchester the approximate storage is 5,806 million gallons (available capacity 5,725 million gallons) and the catchment area 28.5 square miles. The storage at Enoggera reservoir is 1,000 million gallons (available capacity, 631 million gallons), and at Gold Creek Reservoir 407 million gallons (available capacity, 400 million gallons). The catchment area at Enoggera is 12.8 square miles and at Gold Creek, 3.8 square miles.

The total capacity of the service reservoirs on Tarragindi Hill, Eildon Hill, Bartley's Hill, Highgate Hill, Roles' Hill, Sparkes' Hill, Brackenridge, Wickham Terrace, Bulimba and Paddington (elevated tank) is approximately 35.1 million gallons.

(b) *Waterworks. Summary.* The following table gives a summary of operations for the years 1942-43 and 1943-44 :—

WATERWORKS, BRISBANE : SUMMARY.

Year.	Length of Reticulation Mains.	Number of Services Connected. (a)	Estimated Population Supplied. (b)	Quantity Supplied.	Average Daily Supply.	Average Daily Supply per Head of Estimated Population.	Total Length of Trunk Mains.
	Miles.			Million Gallons.	Million Gallons.	Gallons.	Miles.
1942-43 ..	1,070	81,421	333,826	6,315	17.3	51.83	174
1943-44 ..	1,080	81,741	335,138	7,164	19.6	58.41	180

(a) Excludes Ipswich and Redcliffe which are bulk supplies.
service—previously 4.25.

(b) Based on 4.1 persons per

(c) *Sewerage.* The following table gives a summary of operations for the years 1942-43 and 1943-44 :—

SEWERAGE WORKS, BRISBANE : SUMMARY.

Year.	Premises Connected.	Estimated Population Served. (a)	Total Length of Sewers in operation.	Sewers within Premises.	Main and Reticulation Sewers.
			Miles.	Miles.	Miles.
1942-43.. ..	39,951	163,799	1,194.31	663.04	531.27
1943-44.. ..	40,330	165,353	1,201.58	668.46	533.12

(a) Based on 4.1 persons for each connexion.

(d) *Waterworks and Sewerage Works Finances.* The following table gives particulars regarding finance for the years 1942-43 and 1943-44 :—

WATER AND SEWERAGE WORKS, BRISBANE : FINANCES.

Year.	Capital Cost.	Net Revenue from Rates.	Management and Working Expenses.	New Works Construction.	Interest and Redemption of Loans, including Sinking Fund and Overdraft (a)
	£	£	£	£	£
1942-43 ..	11,716,025	873,218	218,351	128,137	572,755
1943-44 ..	(b) 12,743,050	937,830	233,652	(b) 1,027,025	605,633

(a) Excludes £43,973 in 1942-43 and £43,827 in 1943-44 paid as exchange, registry fees, etc.
(b) Includes Somerset Dam, £928,240.

(ii) *Country Towns.*—(a) *Water Supply.* In addition to the city of Brisbane, there were at 30th June, 1940 seventy-nine country towns in Queensland provided with water supply systems (including six in the course of construction) constructed by municipalities chiefly from Government loans. The following statement gives particulars of all water supply systems, excluding Brisbane, for the year 1939-40 :—

COUNTRY WATER SUPPLY SYSTEMS : QUEENSLAND.

Cost of Construction to 30th June, 1940—£3,931,907.

Receipts.	£	Expenditure.	£
Rates and sales of water ..	325,559	Office and salaries ..	25,770
Government and other loans ..	230,230	Construction ..	290,910
Government subsidy of loans ..	81,419	Maintenance ..	145,543
Other	31,849	Interest and redemption ..	148,310
		Other expenses ..	16,643
Total	669,057	Total	627,176
Assets	2,289,787	Liabilities	2,257,170

(b) *Sewerage Systems.* At 30th June, 1940, there were eight cities outside the Metropolitan area—Bundaberg, Ipswich, Mackay, Maryborough, Rockhampton, Toowoomba, Townsville and Warwick—with sewerage works. Sewerage works are also in the towns of Charleville and Goondiwindi and in the shires of Paroo (Cunnamulla) and Quilpie. The works at Mackay, Maryborough, Rockhampton, Toowoomba, Cunnamulla and Quilpie are in operation, whilst those for the other cities were in course of construction at the end of the year.

4. *South Australia.*—(i) *General.* The water supply and sewerage systems in this State were constructed and are maintained by the Engineering and Water Supply Department under the control of the Minister of Works.

(ii) *South Australian Waterworks.* (a) *Summary.* The table hereunder gives particulars of the area, capacity, etc. of combined Metropolitan and Country water works :—

WATERWORKS, SOUTH AUSTRALIA : SUMMARY.

Year.	Assessments.		Area Supplied. (a)	Capacity of Reservoirs.	Length of Mains.	Number of Meters.
	Number.	Annual Value.				
		£	Acres.	Million Gallons.	Miles.	
1942-43 ..	193,758	6,853,816	11,873,534	23,821	6,495	106,080
1943-44 ..	193,463	6,913,593	11,871,102	23,893	6,735	106,770

(a) Excludes Morgan-Whyalla Water Supply—water sold by measure.

(b) *Finances.* Figures for 1942-43 and 1943-44 are shown in the following table. The inclusion of the Morgan-Whyalla Water Supply system since the commencement of operations in April, 1944 has caused considerable increases, particularly as regards capital cost :—

Year.	Capital Cost.	Revenue.	Working Expenses.				Percentage of Net Revenue on Capital Cost.
			Adminis-tration.	Main-tenance.	Other.	Total.	
	£	£	£	£	£	£	%
1942-43 ..	15,253,028	768,343	56,799	164,399	118,933	340,131	2.81
1943-44 ..	17,991,687	816,847	59,640	200,946	113,656	374,242	2.46

(iii) *Adelaide Waterworks.* (a) *Summary.* The following table gives particulars for 1943-44, the figures for consumption being recorded by gaugings taken at the reservoirs including evaporation and absorption. There are 69,000 meters in the Adelaide District.

ADELAIDE WATERWORKS : SUMMARY.

Year.	Assessments.		Area Supplied.	Capacity of Reservoirs.	Length of Mains.	Annual Consumption.
	Number.	Annual Value.				
		£	Acres.	Million Gallons.	Miles.	Million Gallons.
1943-44 ..	140,305	6,038,593	138,685	14,441	1,443	10,080

(b) *Finances.* Particulars for the years 1942-43 and 1943-44 are given below :—

ADELAIDE WATERWORKS : FINANCES.

Year.	Capital Cost.	Revenue.		Working Expenses.				Percentage of Net Revenue on Capital Cost.
		Rates.	Total.	Adminis- tration.	Mainten- ance.	Other.	Total.	
	£	£	£	£	£	£	£	%
1942-43 ..	4,868,168	(a)	529,858	30,967	75,002	29,639	135,608	8.10
1943-44 ..	4,976,103	399,596	530,424	29,752	82,212	23,147	135,111	7.94

(a) Not available.

(iv) *Adelaide Sewerage.* Particulars for 1942-43 and 1943-44 are given hereunder :—

ADELAIDE AND METROPOLITAN SEWERAGE : SUMMARY.

Year.	Length of Sewers.	Number of Con- nections.	Capital Cost of Revenue- Producing Works.	Revenue.		Working Expenses.		Percentage of Net Revenue on Capital Cost.
				Rates, etc.	Total.	Adminis- tration, Maintenance, etc.	Total.	
	Miles.		£	£	£	£	£	%
1942-43 ..	951	87,652	3,667,620	281,754	290,521	92,107	104,265	5.08
1943-44 ..	960	88,598	3,732,975	285,476	295,420	93,637	109,712	4.97

(v) *Country Water Supply.* (a) *Summary.* The chief items of information regarding these undertakings for 1943-44 are set forth in the following table. There were 38,000 meters in country districts.

COUNTRY WATERWORKS, SOUTH AUSTRALIA : SUMMARY.

Year.	Number of Assessments.		Area Supplied.	Capacity of Reservoirs.	Length of Mains.	Annual Consumption.
			Acres.	Million Gallons.	Miles.	Million Gallons.
1943-44	53,158	11,732,517	9,404	5,068

(b) *Finances.* The next table gives financial information for 1943-44 :—

COUNTRY WATERWORKS, SOUTH AUSTRALIA : FINANCES.

Year.	Capital Cost.	Revenue.		Working Expenses.				Percentage of Net Revenue on Capital Cost.
		Rates.	Total.	Adminis- tration.	Mainten- ance.	Other.	Total.	
	£	£	£	£	£	£	£	%
1943-44 ..	10,473,960	183,678	279,644	29,805	113,568	88,838	232,211	0.45

(vi) *Morgan-Whyalla Water Supply Scheme.* This scheme, which involved the laying of 223 miles of main, was officially opened on 31st March, 1944, the cost to 30th June, 1944, being £2,541,615. Particulars of this scheme, where applicable, are included in the tables of the combined waterworks in section (ii) above. The water, which is sold by measure, is obtained from the River Murray, hence particulars of assessments, area supplied and capacity of reservoirs do not apply.

5. *Western Australia.*—(i) *General.* The water supply and sewerage systems of Western Australia are principally under the management of Government Departments, and are divided into the following categories:—(a) Metropolitan Water Supply, Sewerage and Drainage, covering Perth, Fremantle, Claremont, Guildford, Midland Junction and Armadale District; (b) Goldfields Water Supply; (c) Water Supply of other towns; (d) Agricultural Water Supply; and (e) Artesian and sub-artesian waters.

(ii) *Metropolitan Water Supply, Sewerage and Drainage.* (a) *General.* The sources of the metropolitan water supply are the Canning Dam, Churchman Brook Reservoir, Victoria Reservoir, Armadale and Wongong Pipe Head Dams, and certain bores. The largest water supply project, the Canning Dam, with a capacity of 20,550 million gallons, was completed during 1940.

The sewage treatment works of Perth and suburbs consist of primary sedimentation with separate sludge digestion and discharge of all effluent direct to the ocean. Fremantle treatment works consist of septic tanks with ocean outfall for effluent. At 30th June, 1944, the number of premises connected with sewers was 42,675.

(b) *Summary.* The following table gives particulars regarding water supply for 1942-43 and 1943-44:—

METROPOLITAN WATER SUPPLY, WESTERN AUSTRALIA : SUMMARY.

Year.		Estimated Population Supplied.	Number of Services.	Annual Consump- tion of Water.	Average Daily Consumption.		Number of Meters.	Length of Mains.
					Per Head.	Per Service.		
				Million Gallons.	Gallons.	Gallons.		Miles.
1942-43	..	236,650	66,061	6,175	71.49	256.10	41,204	1,016
1943-44	..	240,130	66,300	7,726	88.15	319.27	41,476	1,020

(c) *Finances.* The table hereunder gives separate information for the water supply and sewerage and drainage branches for 1942-43 and 1943-44:—

METROPOLITAN WATER SUPPLY, AND SEWERAGE AND DRAINAGE, WESTERN AUSTRALIA : FINANCES.

		Water Supply.			Sewerage and Drainage.		
Year.		Capital Cost.	Revenue.	Expendi- ture.(a)	Capital Cost.	Revenue.	Expendi- ture.(a)
		£	£	£	£	£	£
1942-43	..	5,257,048	333,296	320,398	3,836,909	213,317	236,003
1943-44	..	5,267,611	361,590	328,562	3,840,993	213,813	242,102

(a) Includes interest and sinking fund.

(iii) *Goldfields Water Supply.* The source of supply for the Coolgardie and adjacent goldfields as well as for the towns and districts on or near the pipeline is the Mundaring Reservoir, which has a capacity of 4,650 million gallons. This scheme is now linked

by pipe-line with the Canning Dam. In 1943-44 the railways consumed 5.4 per cent., the mines 24.5 per cent., and domestic, etc., 70.1 per cent. of the supply. The following table gives details for 1943-44 :—

GOLDFIELDS WATER SUPPLY, WESTERN AUSTRALIA : SUMMARY.

Year.	Total Consumption.	Number of Services.	Length of Water Mains.	Capital Cost.	Revenue.	Expenditure.
	Million gallons.		Miles.	£	£	£
1943-44 ..	1,368	14,223	1,745	6,096,651	291,713	358,268

(iv) *Water Supply of Other Towns, etc.* (a) *Controlled by Public Works Department.* During 1943-44 water supplied to other towns and districts amounted to 446 million gallons, distributed as follows :—Railways, 34 million gallons ; mines, 19 million gallons ; and 393 million gallons to domestic and other consumers.

(b) *Controlled by Government Railways.* Consumption for the year ended 30th June, 1944, was 419 million gallons.

(c) *Water Boards not Controlled by Government.* During 1943-44 approximately 399 million gallons of water were supplied to an estimated population of 18,598.

(v) *Agricultural Water Supply.* During the thirty-four years from 1st July, 1910, to 30th June, 1944, 551 tanks were built, 385 wells sunk, and 3,653 bores put down to a total depth of 199,038 feet. Of the bores put down, 555 yielded fresh and 323 stock water. No wells were sunk nor tanks excavated during 1943-44.

(vi) *Artesian and Sub-artesian Waters.* Up to 30th June, 1944, the total number of bores put down in search of artesian or sub-artesian water and in which water was struck (exclusive of operations by Defence Services) was 284, ranging in depth from 30 to 4,006 feet. These figures include 52 bores sunk in the metropolitan area.

6. *Tasmania.*—(i) *Hobart Water Supply.* The cost of this undertaking to 30th June, 1944, was £777,039 (£764,440 to 30th June, 1943), but a considerable amount of reticulation work has been charged to revenue and not to capital account. The outstanding loans at 30th June, 1944 amounted to £534,510 (£542,112 to 30th June, 1943). The number of properties assessed was 15,608 (15,399) and the length of reticulation mains 149 miles (149 miles).

(ii) *Hobart Sewerage System.* The revenue for the year ended 30th June, 1943, was £37,610. The cost of the sewerage system to serve Hobart, Queenborough and New Town to 30th June, 1943, was £479,111. To that date 13,188 tenements have been connected and 156 miles of sewers have been laid.

§ 5. Harbour Boards and Trusts.

1. *New South Wales.*—(i) *Maritime Services Board of New South Wales.* (a) *General.* The port of Sydney is administered by the Maritime Services Board of New South Wales, a corporate body of five Commissioners, three of whom are full-time members and two, representing shipping and commercial interests, part-time members. The Board was brought into existence on 1st February, 1936 by the Maritime Services Act, 1935, in order to co-ordinate the port and navigation services of the State, which had previously been administered by the Sydney Harbour Trust and by the State Department of Navigation.

The Board exercises general control over intra-State shipping, including the survey and certification of vessels and the examination and issue of certificates to officers ; is responsible for the provision of pilotage services, lights, beacons, buoys and other port

facilities; imposes and collects rates and charges on goods and vessels; and is vested with the general control and management of the navigable waters and ports within the State.

At the Port of Sydney, the Board is also responsible for the provision of adequate wharfage and channels, and carries out all construction, maintenance and dredging work. At other ports of New South Wales such work is undertaken by the Department of Public Works on behalf of the Board.

(b) *Port of Sydney.* The entrance to Sydney Harbour is nearly a mile wide, and is not less than 80 feet deep. Between the entrance, known as "The Heads", and the Harbour proper, a distance of 4 miles, there are two separate channels, each with a depth of 40 feet at low tide and a width of 700 feet. The foreshores are 188 miles in length, and the total area of the port is 14,284 acres, or 22 square miles, of which about one-half has a depth of 30 feet or more at low water ordinary spring tide. The mean range of tides is 3 feet 6 inches.

Excluding ferry wharves and jetties used for private purposes, there are 64,600 feet of wharfage controlled by the Maritime Services Board, and 10,000 feet of commercial wharfage privately owned. Approximately one-third of the shipping wharves controlled by the Board are leased to shipping companies; the remainder, which are unleased, are maintained direct by the Board. There is ample shed accommodation for normal demands and the port is well equipped with railway wharfage for the handling of traffic which is required to pass direct from ship to rail and vice versa. For the wheat export trade, in both bulk and bag, ample wharfage accommodation and handling equipment of the most modern character are available. Special facilities for the storage and handling of other staple products such as wool, etc., are provided on the waterside, and modern plant has been installed at Ball's Head for replenishing ships' bunkers with oil or coal. Facilities in all directions can be very considerably extended when required.

The docking facilities comprise several large graving docks and a number of floating docks and patent slips. The Captain Cook Graving Dock, opened in March, 1945, is capable of accommodating the largest vessel afloat.

The following table gives particulars of the finances of the Board for 1942-43 and 1943-44 in respect of the Port of Sydney:—

MARITIME SERVICES BOARD : FINANCES OF THE PORT OF SYDNEY.

Year.	Revenue.				Working Expendi- ture.	Interest, Sinking Fund, Exchange.	Surplus.	Total Capital Debt. (a)
	Wharfage and Tranship- ment Rates.	Tonnage Rates and Berthing Charges.	Other Sources.	Total.				
	£	£	£	£	£	£	£	£
1942-43	665,331	99,419	427,132	1,191,882	405,169	541,751	244,962	11,165,232
1943-44	744,998	119,393	451,057	1,315,448	451,414	547,534	316,500	11,154,210

(a) After allowing for balance in liquidation of Capital Debt Account.

(c) *Port of Newcastle.* Newcastle Harbour is administered by the Maritime Services Board and an advisory committee consisting of five members appointed by the Governor. In regard to gross tonnage of shipping entered, Newcastle ranks second in importance in New South Wales and fourth in Australia. It is primarily a coal-loading port, but its activities cover the shipment of general commodities. The wharfage and other facilities of the port have been further improved and extended to meet the actual and the anticipated growth of trade with the expansion of industry in the district. Facilities are available for the shipment of wool, wheat and frozen meat, and a wharf is available for timber.

(d) *Port Kembla.* The Navigation and Harbour and Tonnage Rates Acts are administered at Port Kembla by the New South Wales Department of Public Works on behalf of the Maritime Services Board. Port Kembla, which is sharing to an increasing

extent in the shipping trade of the State, has an area of approximately 330 acres, with depths ranging from 20 to 50 feet, and wharfage accommodation has been provided for large ocean-going vessels. Being adjacent to the southern coalfields and a rapidly developing centre of secondary industries, its trade is growing and a great future for the port is predicted.]

(e) *Other Ports.* In addition to the ports of Sydney and Newcastle, the Board controls 29 outports along the coastline of 609 miles.

(ii) *Port Charges.* There has been much ill-informed criticism of the port charges levied upon shipping in Australian ports. The fact is that the Governmental charges compare favourably with those of other parts of the world when the services rendered are taken into consideration. They are much lower than the charges at the leading ports of the United Kingdom. Direct comparisons of port charges are difficult, if not impossible, to make, because of the differing port customs, and the absence of similarity in the nature and methods of applying them. It is considered that the most satisfactory method of comparison is to take the total collections by the port authorities, and arrive at the average rate per ton. This has been done in the case of the two leading ports in Australia and in the United Kingdom, and the figures are as follows :—

PORT CHARGES : AUSTRALIA AND UNITED KINGDOM.

Port.			Net Tonnage of Vessels Entered.	Charges on Shipping (excluding Pilotage).	Average Rate per Ton of Shipping.
Australia—				£	d.
Sydney (1938-39)	..	..	11,650,317	234,094	4.8
Melbourne (1938)	..	..	8,578,270	210,432	5.9
United Kingdom—					
London (1938-39)	..	..	31,041,920	1,418,494	10.9
Liverpool (1938-39)	..	..	21,724,050	1,594,036	17.6

2. *Victoria.*—(i) *Melbourne Harbour Trust.* (a) *General.* Information regarding the origin and constitution of this Trust appears in Official Year Book No. 12, p. 970 *et seq.* At 31st December, 1944, the sheds available for wharfage accommodation had a length of 19,567 feet, covering an area of 1,338,578 square feet. The area of water in the bay and River Yarra under the control of the Trust is approximately 5,321 acres and the total length of wharves, piers and jetties in the port is 61,740 feet, giving an area of over 58 acres of wharfage, of which 52,799 feet is effective berthing space. During 1943 and 1944 the quantity of material raised by dredging and excavation in the river and bay amounted to 1,731,675 and 1,813,031 barge yards respectively at a cost of £150,414 and £168,575. The Trust has expended £377,518 in reclaiming land within its jurisdiction by depositing 18,555,843 barge yards of material thereon.

(b) *Finances.* During the years ended 31st December, 1943 and 1944, the revenue (excluding refunds) of the Trust amounted to £955,952 and £896,386 respectively, and expenditure to £878,711 and £865,554 respectively (including amounts of £160,043 and £145,218 paid to Consolidated Revenue and Geelong Harbour Trust). There was a net surplus on revenue account of £77,241 and £30,832 in each year. Appropriation for sinking fund and charges for depreciation, renewals and insurance against revenue account for each year amounted to £170,260 and £182,538. The capital expenditure for each year was £230,562 and £203,613. At 31st December, 1943 and 1944 the total capital expenditure amounted to £9,700,301 and £9,796,428 respectively, the loan indebtedness at those dates being £4,123,821 and £4,043,046 respectively.

(ii) *Geelong Harbour Trust.* The Geelong Harbour Trust was constituted in 1905, and reconstituted in 1934 under the provisions of the Melbourne and Geelong Harbour Trusts Act 1934. The Trust is under the control of three Commissioners appointed by the Governor-in-Council. Revenue for the years 1943 and 1944 was £77,278 and

£79,562 respectively. Revenue expenditure was £83,969 and £77,093, capital expenditure £3,719 and £5,772, and loans outstanding at the end of each year amounted to £546,657 and £536,734.

(iii) *Harbour Boards.* The Harbour Boards Act 1928 made provision for the establishment of Harbour Boards at Gippsland Lakes, Welshpool, Warrnambool, Port Fairy and Portland, all of which ports were, at the commencement of the operation of this Act, under the control of the Public Works Department. The Warrnambool Harbour Board, which was constituted on 29th May, 1928 under the provisions of this Act, was abolished on 30th June, 1936 by Order in Council and the port was restored to the control of the Public Works Department.

3. *Queensland.*—(i) *Bowen Harbour Board.* The Bowen Harbour Board consists of seven members, of whom two are appointed by the Governor-in-Council and the remainder elected by the electors of the town of Bowen and adjacent shires. The district under its jurisdiction comprises the area within the boundaries of the town of Bowen, the shires of Proserpine and Wangaratta, and Division 1 of the shire of Ayr. The capital expenditure for 1943 and 1944 was £260 and £172 respectively, the revenue being £15,150 and £12,250 and the expenditure £13,655 and £14,917.

(ii) *Bundaberg Harbour Board.* The Bundaberg Harbour Board consists of nine members, of whom one is appointed by the Governor-in-Council, four are elected by the electors of the city of Bundaberg, and two each by the electors of the shires of Gooburrum and Woongarra.

The capital expenditure for the years 1943 and 1944 was £5,460 and £2,470 respectively, the revenue being £7,257 and £14,679 and the expenditure £10,881 and £15,173.

(iii) *Cairns Harbour Board.* The Cairns Harbour Board, which controls the port, consists of thirteen members, representing the city of Cairns and six adjoining shires. The wharves are exclusively under the control of this Board and consist of 2,350 lineal feet in reinforced concrete, upon which spacious sheds are erected with a floor space of 101,770 square feet, brilliantly lighted by the Barron Falls Hydro-Electricity Scheme. A most comprehensive electrical equipment is erected at the wharves for transferring sugar from railway waggon or shed direct into vessels' holds, and a special sugar storage shed, fitted with this equipment, can accommodate 7,500 tons. The Board's suction dredger maintains a minimum depth of 22 feet of water at low water ordinary spring tide in the entrance channel. Ships drawing approximately 27 feet of water can berth at wharves. Railway facilities are provided in front of and at rear of the wharves. Extensive mobile cargo handling plant was introduced into waterside operations during the war.

The capital expenditure for the years 1943 and 1944 was £8,358 and £5,198 respectively. The revenue for these years was £187,641 and £198,053 and the expenditure £172,899 and £190,854.

(iv) *Gladstone Harbour Board.* The Gladstone Harbour Board is composed of seven members, two of whom are appointed by the Governor-in-Council and five elected by the electors of the town of Gladstone and the shires of Calliope and Miriam Vale.

The capital expenditure for 1943 and 1944 was £1,828 and £1,086 respectively, the revenue being £17,455 and £28,506 and the expenditure £14,006 and £23,574.

(v) *Mackay Harbour Board.* The Mackay Harbour Board consists of nine members elected by the electors of the city of Mackay and the shires of Pioneer, Sarina, Mirani and Nebo.

The capital expenditure for the years 1943 and 1944 was £34,215 and £16,894 respectively, the revenue being £103,733 and £85,740 and the expenditure £85,906 and £63,128.

(vi) *Rockhampton Harbour Board.* The Rockhampton Harbour Board consists of eleven members, of whom seven are elected by the electors on the rolls of the city of Rockhampton, and the shires of Mount Morgan, Fitzroy and Livingstone. The remaining four are elected by the councillors of groups of inland shires.

The capital expenditure for 1943 and 1944 was £7,982 and £12,044 respectively, the revenue being £28,029 and £41,044 and the expenditure £28,636 and £32,659.

(vii) *Townsville Harbour Board.* The Townsville Harbour Board is composed of nine members of whom two are appointed by the Governor-in-Council and the remaining seven are elected by the electors of Townsville and adjacent towns and shires. All harbour works and conveniences for the use of shipping are under the control of the Board. The capital expenditure for 1943 and 1944 was £5,308 and £7,727 respectively, the revenue for these years being £296,147 and £360,058 and the expenditure £92,650 and £90,447.

(viii) *Queensland Harbour Boards' Finances.* The following table shows details of the finances of all Harbour Boards for the years ended 31st December, 1943 and 1944 :—

HARBOUR BOARDS, QUEENSLAND : FINANCES.

Year ended 31st December.	Revenue.		Expenditure.					Assets.	Liabilities.
	Wharfage and Harbour Dues.	Total.	Interest on Loans.	Redemption of Loans.	Construction and Maintenance.	Other.	Total.		
	£	£	£	£	£	£	£	£	£
1943 ..	497,719	655,412	80,273	57,464	221,464	59,432	418,633	3,557,980	2,610,845
1944 ..	590,409	740,330	72,106	78,905	191,707	88,934	430,752	3,857,015	2,640,255

4. *South Australia.—The South Australian Harbours Board.* All South Australian harbours are controlled by the South Australian Harbours Board, which consists of three commissioners, appointed by the Governor for a period of five years and eligible for re-appointment. The Board is responsible to the Minister of Marine for the discharge of its duties and functions and its finances form part of the Consolidated Revenue Fund transactions. As such, they are included in the State Finance Section, Chapter XVIII. "Public Finance", but no detail is there shown. The following table has been inserted in this section :—

SOUTH AUSTRALIAN HARBOURS BOARD : FINANCES.

Year.	Revenue.	Expenditure from Revenue.				Capital Expenditure to 30th June.
		Working Expenses.	Interest.	Sinking Fund.	Total.	
	£	£	£	£	£	£
1939-40 ..	625,231	189,422	333,657	50,000	573,079	8,147,140
1940-41 ..	601,041	224,800	333,174	50,000	607,974	8,145,264
1941-42 ..	668,228	240,272	328,372	44,330	612,974	8,161,515
1942-43 ..	574,712	281,954	322,739	46,336	651,029	8,213,151
1943-44 ..	602,335	279,188	322,195	48,368	649,751	8,200,359

5. *Western Australia.—(i) Fremantle Harbour Trust.* (a) *General.* Fremantle Harbour is controlled by a board of five commissioners appointed by the Governor-in-Council. A description of the works is given in a previous issue of the Official Year Book (see No. 12, p. 973). Since that account was written, bulk-handling facilities have been provided and the inner harbour, entrance channel and berthing accommodation have been dredged to a depth of 36 feet below the lowest known low water. The length of berthage accommodation at all the quays is now 10,177 feet.

(b) *Finance.* The following table gives financial details for 1942-43 and 1943-44 :—

FREMANTLE HARBOUR TRUST : FINANCES.

Year.	Expenditure.							Total.
	Revenue.	Working Expenses.	Interest.	Sinking Fund.	Renewals Fund.	Capital Expenditure.	Surplus Revenue. (a)	
	£	£	£	£	£	£	£	£
1942-43 ..	615,459	352,878	144,810	23,120	2,000	4,352	119,311	646,471
1943-44 ..	667,574	399,868	143,816	24,176	2,000	4,627	91,148	665,635

(a) Paid to Consolidated Revenue.

(ii) *Bunbury Harbour Board.* (a) *General.* The Bunbury Harbour Board consists of five members appointed by the Government. The jetty is 4,900 feet long, with berthage accommodation of 3,700 feet, and is electrically lighted.

(b) *Finances.* Details for 1942-43 and 1943-44 are given hereunder. Surplus revenue is paid into Consolidated Revenue Fund to meet interest and other charges :—

BUNBURY HARBOUR BOARD : FINANCES.

Year.	Capital Account.	Revenue.	Expenditure.	Interest.
	£	£	£	£
1942-43 ..	681,516	17,188	10,846	33,756
1943-44 ..	681,006	18,946	11,887	33,717

6. *Tasmania.*—(i) *Marine Board of Hobart.* (a) *General.* The Marine Board of Hobart consists of nine wardens elected by the ship-owners of the Port of Hobart and the importers and exporters of goods into or from any port within the jurisdiction of the Board.

(b) *Finances.* The following table gives details for 1942-43 and 1943-44 :—

MARINE BOARD OF HOBART : FINANCES.

Year.	Capital Debt.	Revenue.		Expenditure.		
		Taxes, Dues, etc.	Total.	Interest and Sinking Fund.	Works, Services, etc.	Total.
	£	£	£	£	£	£
1942-43 ..	10,741	42,478	57,677	1,007	47,204	52,297
1943-44 ..	9,832	45,928	50,365	1,067	49,353	53,771

(ii) *Marine Board of Launceston.* (a) *General.* The Marine Board of Launceston consists of five wardens, three elected by the ratepayers of the city of Launceston and two by ratepayers of the municipalities within the Tamar District.

(b) *Finances.* The following table gives details for 1942-43 and 1943-44 :—

MARINE BOARD OF LAUNCESTON : FINANCES.

Year.		Revenue.			Expenditure.		
		Capital Debt.	Taxes, Dues, etc.	Total.	Interest and Sinking Fund.	Works, Services, etc.	Total.
		£	£	£	£	£	£
1942-43	..	165,549	40,661	45,689	12,113	32,523	48,452
1943-44	..	130,133	40,564	60,390	11,733	45,874	61,421

(iii) *Marine Board of Burnie.* The length of the breakwater is 1,250 feet, with a depth up to 42 feet at low water. There is a wharf alongside 736 feet in length by 91 feet wide, with a depth at low water from 25 to 35 feet. There are two other timber wharves 700 feet and 600 feet long, with depths of 27 to 31 feet and 16 to 27 feet respectively. The receipts for the year 1942-43 and 1943-44 were £27,633 and £31,195 respectively, and the expenditure £28,566 and £30,090, including in each amount £18,100 interest on loans, etc.

§ 6. Fire Brigades.

1. *New South Wales.*—(i) *General.* Under the Fire Brigades Act, 1909-44, a Board of Fire Commissioners, consisting of eight members, operates, and 131 fire districts have been constituted. The cost of maintenance of fire brigades is borne in proportions of quarter, quarter, and half by the Government, the municipalities, and the insurance companies concerned, but the expenditure must be so regulated that the proportion payable by the councils in a fire district shall not exceed the amount obtainable from ½d. in the £1 rate on the unimproved capital value of ratable land in the fire district; provided that the Board, with the consent of the Minister, and at the special request of the councils of the municipalities or shires constituting or forming part of a fire district or a majority in number of such councils may, as to that district, exceed the limit above provided.

(ii) *Board of Fire Commissioners of New South Wales.* At 31st December, 1944 the Board had under its control 80 fire stations in the Sydney fire district and 157 fire stations in the country fire districts. The Sydney fire district includes the City of Sydney and suburbs, and comprises a total area of 298 square miles. The revenue for the year 1944 (figures for the year 1943 in parenthesis) was £598,973 (£597,922), made up as follows :—From the Government, £142,591 (£142,917); municipalities and shires, £142,591 (£142,917); fire insurance companies and firms, £285,182 (£285,834); and from other sources, £28,609 (£26,254). The disbursements for the year were £584,823 (£583,617).

2. *Victoria.*—(i) *General.* The Fire Brigades Act of 1928 provides for a Metropolitan Fire Brigades Board and a Country Fire Brigades Board, each consisting of nine members. The income of each Board is derived in equal proportions from the Treasury, the municipalities and insurance companies.

(ii) *Metropolitan Fire Brigades Board.* On 30th June, 1944 the Board had under its control 42 stations. The total receipts for 1943-44 were £310,199, comprising contributions £226,117, receipts for services £58,091, and interest and sundries £25,991. The expenditure was £302,277, made up as follows :—Salaries (permanent staff) £141,841, interest and repayments of principal £22,416, and other expenditure, £138,020. There was no loan expenditure during the year and the loan indebtedness at the end of the year was £195,269.

(iii) *Country Fire Brigades Board.* At 30th June, 1944, there were 138 municipal councils and 111 insurance companies included in the operations of the Act. The brigades are composed chiefly of volunteers, but in the large centres a few permanent station-keepers and paid part-time firemen are employed. Complete fire-alarm systems are installed in 42 of the larger provincial cities and townships. There were 177 registered brigades at the end of June, 1944. For 1942-43 and 1943-44 the revenue was £39,945 and £40,220 respectively and the expenditure £38,802 and £36,826. Loan expenditure during the year 1943-44 was £4,836, and nil during 1942-43. At the close of the years 1942-43 and 1943-44 the loan indebtedness was £56,565 and £56,950 respectively.

3. *Queensland.*—(i) *General.* The Acts of 1920-31 made provision for the retention of existing fire districts, and for the constitution of new districts. For each district there must be a Fire Brigades Board consisting of seven members, and the cost of maintenance of each brigade is proportioned as follows :—The Treasury two-sevenths, insurance companies three-sevenths, and local authorities two-sevenths. All volunteer fire brigades in a district must be registered.

(ii) *Fire Brigades Boards.* At 30th June, 1944, there were fire brigades in 43 towns. The total revenue for the year 1943-44 (figures for 1942-43 in parenthesis) was £233,047 (£281,003), received mainly from the following sources: Government £71,675 (£77,969), local authorities £51,217 (£53,221), insurance companies £51,217 (£53,221), and loans (Government and other), £7,830 (£32,786). The total expenditure for the year was £233,942 (£239,912), the chief items being salaries and wages £153,709 (£132,774), and interest and redemption of loans, £20,975 (£20,712).

4. *South Australia.*—The Fire Brigades Act 1936-42 provides for a board of five members, and the expenses and maintenance of brigades are defrayed in the proportion of two-ninths by the Treasury, five-ninths by insurance companies, and two-ninths by the municipalities concerned. The contribution of the Treasury, however, is limited to £10,000 and if two-ninths of the expenses and maintenance exceeds this amount five-sevenths of the excess is contributed by the insurance companies and two-sevenths by the municipalities. At the 30th June, 1944 there were altogether 28 fire brigade stations, and the total revenue for the years 1942-43 and 1943-44 was £76,954 and £81,109 respectively.

5. *Western Australia.*—(i) *General.* Under the 1942 Act certain Municipal and Road Board Districts are constituted fire districts under the control of the Western Australian Fire Brigades Board. The income of the Board is derived in the proportion of two-ninths from the Government, two-ninths from Local Government Authorities, and five-ninths from insurance companies.

(ii) *Western Australian Fire Brigades Board.* The whole of the brigades throughout the State are now controlled by the Western Australian Fire Brigades Board, and number 43. The revenue for the years ended 30th September, 1943 and 1944 was £72,331 and £78,679 respectively and the expenditure £73,333 and £77,141.

6. *Tasmania.*—(i) *General.* The municipal council of any municipality may, under the Act of 1920, petition the Government to proclaim the municipality or any portion of it to be a fire district, each district to have a Board of five members. The expenses of each Board are borne in equal proportions by contributions from the Treasury, the municipality concerned, and insurance companies insuring property within the district.

(ii) *Hobart Fire Brigade Board.* The revenue of the Board for the year 1943 amounted to £9,089 and for the year 1944 to £9,863.

CHAPTER XVII.

PRIVATE FINANCE.

A. GENERAL.

This chapter, for convenience, has been sub-divided into six sections as follows :—

Currency; Banking, including Savings Banks; Companies; Insurance; Friendly Societies; and Probates.

The section on currency which, in previous issues, was included in the chapter on Public Finance has now been transferred to this chapter.

B. CURRENCY.

§ 1. General.

When the Commonwealth was established in 1901, the currency in Australia consisted of United Kingdom gold, silver and bronze coins, bank notes issued by the trading banks, and Queensland Treasury notes. Queensland Treasury notes were in circulation in Queensland only, having superseded bank notes in that State after the 1893 crisis. Under the Commonwealth Constitution the control of currency, coinage and legal tender and the issue of paper money were vested in the Commonwealth. The Commonwealth assumed these powers by enacting the Coinage Act 1909 and the Australian Notes Act 1910.

§ 2. Coinage.

1. **Coins in Circulation.**—Until 1910 the coins used for currency in Australia were United Kingdom gold, silver and bronze coins. The gold coins in general circulation were sovereigns and half-sovereigns minted by the Royal Mint in England or by branches of the Royal Mint established in Sydney, Melbourne and Perth. Wherever minted, these gold coins were British currency and were identical in weight and fineness. British token coins in general circulation were the half-crown, florin, shilling, sixpence and threepence of silver and the penny and half-penny of bronze. The Coinage Act 1909 authorized the Treasurer to issue Australian coins of the following denominations, viz. :—

Silver—Florin, shilling, sixpence and threepence.

Bronze—Penny and half-penny.

Coins of these denominations having a distinctive Australian design were first issued under this Act in 1910. The United Kingdom silver and bronze coins in circulation when the Australian coins were introduced continued to be legal tender, but arrangements were made with the British Government to withdraw United Kingdom silver coins from circulation at the rate of £100,000 per annum. The withdrawal under these arrangements continued for some years and was greatly accelerated by the appreciation of sterling in terms of Australian Currency in 1930 and 1931. At the present time practically the only coins circulating in Australia are those issued under the Currency Act 1901–1936. In 1936 the Coinage Act 1909 was amended to permit the issue of an additional silver coin—the Crown (5s.).

From 1910 to 1916 Australian coins were minted in England by the Royal Mint. Since 1916 they have been minted at the Melbourne branch of the Royal Mint. Gold coins practically disappeared from circulation during the 1914–19 War and their place was taken by Australian notes. In September, 1931, the Australian Mints ceased to

mint gold coins. During the 1939-45 War the Melbourne Mint was unable to meet the full demand for Australian coins and some coins were minted at the Perth Mint and at mints in the United States of America and India.

2. **Issues of Australian Coins.**—The total issues of silver and bronze coinage on account of the Commonwealth since 1910 are set out in the following table :—

AUSTRALIAN COINS : SILVER AND BRONZE—ISSUES.

Year.	Silver.						Bronze.		
	5s.	2s.	1s.	6d.	3d.	Total.	1d.	$\frac{1}{2}$ d.	Total.
	£	£	£	£	£	£	£	£	£
1910 to 1935 ..	..	4,149,800	1,899,900	914,500	883,700	7,847,900	2385,913	140,395	526,308
1935-36 ..	..	167,500	34,400	46,800	49,400	298,100	23,920	8,050	31,970
1936-37 ..	200,000	208,600	13,000	47,000	39,200	507,800	17,180	6,190	23,370
1937-38 ..	50,000	365,000	93,600	59,700	65,200	633,500	26,770	7,130	33,900
1938-39 ..	25,000	77,400	30,000	47,800	39,400	219,600	30,660	11,140	41,800
1939-40 ..	600	176,800	36,800	41,600	50,600	306,400	20,770	5,280	26,050
1940-41 ..	..	1,161,000	83,400	66,800	83,200	1,394,400	45,820	7,600	53,420
1941-42 ..	..	1,505,800	69,000	53,000	64,400	1,692,200	57,230	20,270	77,500
1942-43 ..	..	3,090,600	781,000	724,200	439,400	5,035,200	126,380	25,100	151,480
1943-44 ..	..	2,615,000	650,000	200,000	759,400	4,224,400	206,210	77,800	284,010
1944-45 ..	..	1,343,000	978,800	352,400	150,000	2,824,200	96,340	1,500	97,840
Total ..	275,600	14,860,500	4,669,900	2,553,800	2,623,900	24,983,700	1,037,193	310,455	1,347,648

(a) Includes £4,100 issued to New Zealand.

3. **Standard Weight and Fineness of Coinage.**—The standard weight and fineness of the sovereign, half-sovereign and Australian silver and bronze coins are set out in the schedule to the Coinage Act 1909-1936. These details are given in the following table :—

IMPERIAL GOLD COINS AND AUSTRALIAN SILVER AND BRONZE COINS : STANDARD WEIGHT AND FINENESS.

Denomination of Coin.	Standard Weight.	Least Current Weight.	Standard Fineness.	Remedy Allowance.(a)		
				Weight per Piece.	Proportion of weight applicable to tests of 1,000 pieces in bulk.	Millesimal Fineness.
	Grains.	Grains.		Grains.		
Gold—						
Sovereign ..	123.27447	122.50000	Eleven-twelfths fine gold, one-twelfth alloy; or millesimal fineness 916.6	0.20	..	2
Half-sovereign	61.63723	61.12500		0.15	..	
Silver—						
Crown ..	436.36363	..	Thirty-seven fortieths fine silver, three-fortieths alloy; or millesimal fineness 925	..	1 in 220	4
Florin ..	174.54545	..		..	1 in 175	
Shilling ..	87.27272	..		..	1 in 150	
Sixpence ..	43.63636	..		..	1 in 125	
Threepence ..	21.81818	..		..	1 in 100	
Bronze—						
Penny ..	145.83333	..	Mixed metal, copper, tin, and zinc	..	1 in 40	none
Halfpenny ..	87.50000	..		..	1 in 40	

(a) Permissible variation from standard weight and fineness.

4. **Legal Tender.**—Imperial gold coins of the specified weight and fineness are legal tender in Australia for any amount. Australian silver coins are legal tender for any amount not exceeding forty shillings and Australian bronze coins are legal tender for any amount not exceeding one shilling.

5. **Profits on Coinage of Silver and Bronze.**—Australian silver and bronze coins are token coins and, as the face value of the coins is much greater than the value of the bullion they contain, a profit is made from their issue. This profit forms part of the Commonwealth Consolidated Revenue. In the following table details are given of the value of coins issued, the cost of bullion, the cost of minting and sundry expenses connected with the issue, and the profits made on the issue of coins during the years 1938-39 and 1941-42 to 1944-45.

AUSTRALIAN SILVER AND BRONZE COINS: PROFITS FROM ISSUE.

Year.	Coin Issued.	Cost of Bullion.	Gross Profit.	Cost of Minting and sundry charges.	Net Profit to Consolidated Revenue.
SILVER COIN.					
	£	£	£	£	£
1938-39 ..	219,600	81,314	138,286	18,459	119,827
1941-42 ..	1,692,200	729,513	962,687	109,509	853,178
1942-43 ..	5,935,200	2,185,182	2,850,018	284,240	2,565,778
1943-44 ..	4,224,400	2,025,091	2,199,309	199,309	2,000,000
1944-45 ..	2,824,200	1,301,228	1,522,972	224,617	1,298,355
BRONZE COIN.					
	£	£	£	£	£
1938-39 ..	41,800	7,838	33,962	26,025	7,937
1941-42 ..	77,500	17,275	60,225	45,513	14,712
1942-43 ..	151,480	37,121	114,359	91,349	23,010
1943-44 ..	284,010	75,478	208,532	180,646	27,886
1944-45 ..	97,840	23,362	74,478	65,796	8,682
TOTAL.					
	£	£	£	£	£
1938-39 ..	261,400	89,152	172,248	44,484	127,764
1941-42 ..	1,769,700	746,788	1,022,912	155,022	867,890
1942-43 ..	5,186,680	2,222,303	2,964,377	375,589	2,588,788
1943-44 ..	4,508,410	2,100,569	2,407,841	379,955	2,027,886
1944-45 ..	2,922,040	1,324,590	1,597,450	290,413	1,307,037

6. **Australian Mints.**—(i) *General.* Soon after the discovery of gold in Australia a branch of the Royal Mint was established in Sydney. The formal opening took place on 14th May, 1855. The Melbourne branch was opened on 12th June, 1872, and the Perth branch on 20th June, 1899. The States of New South Wales, Victoria and Western Australia provided an annual endowment in return for which the mint receipts were paid into the respective State Treasuries. Early in 1923, owing to losses incurred in its operations, the British Treasury in consultation with the New South Wales Government decided to close the Sydney branch at the end of 1923. This decision was, however, not carried out until the end of 1926.

Since their establishment the Australian branches of the Royal Mint have been primarily concerned with the refining of gold, minting of Imperial gold coins and the production of bars and ingots of gold bullion for export. The minting of Imperial gold coins was discontinued in September, 1931. In 1916 the Melbourne branch took over from the Royal Mint, London the minting of Australian silver and bronze coins, and during the 1939-45 War the Perth branch minted Australian coins. The Melbourne branch has also minted token coins for the Territory of New Guinea and for New Zealand.

(ii) *Gold Receipts and Issues.*—(a) *Receipts.* The receipts of gold during 1943, 1944 and 1945 and the aggregate at each mint to the end of 1945 were as follows:—

AUSTRALIAN MINTS: RECEIPTS OF GOLD.

Mint.	Deposits during year—			Total to end of 1945.		
	Quantity.			Value.(b)		£
	1943.	1944.	1945.	Gross.	Fine.	
	Oz.	Oz.	Oz.	Oz.	Oz.	
Sydney(a) ..	..	..	..	42,082,928	36,907,045	156,771,141
Melbourne ..	186,343	132,751	128,727	46,555,281	41,758,230	177,377,572
Perth ..	752,897	654,115	653,737	48,387,555	38,639,907	164,131,783
Total ..	939,240	786,866	782,464	137,025,764	117,305,182	498,280,496

(a) To end of 1926, when the mint was closed.

(b) At £3 17s. 10½d. per standard ounce.

In cases of deposits containing over a certain minimum of silver, the excess is paid for at the rate fixed from time to time by the Deputy-Master of the branch mint concerned.

(b) *Issues.* The Australian mints issue gold bullion partly for the use of local manufacturers (jewellers and dentists), and partly for export. Since September, 1931, when the United Kingdom departed from the gold standard, the minting of gold coins by Australian mints has ceased. Australian exports of gold are mainly in the form of 400-oz. ingots, but in earlier years a considerable amount of gold was shipped in 10-oz. bars to India. Since early in the 1939-45 War all gold has been acquired by the Commonwealth Bank and the export and use of gold has been subject to regulation by the Commonwealth Government. The issues during the years 1943 to 1945, and the total to the end of 1945, are shown in the table below:—

AUSTRALIAN MINTS: ISSUES OF GOLD.

Mint.	Coin.			Bullion. (a)	Total.
	Sovereigns.	Half-sovereigns.	Total.		
	£	£	£	£	£
1943—					
Melbourne ..	..	..	..	636,805	636,805
Perth ..	..	..	..	2,313,823	2,313,823
Total, 1943	..	..	..	2,950,628	2,950,628
1944—					
Melbourne ..	..	..	..	493,497	493,497
Perth ..	..	..	..	1,970,415	1,970,415
Total, 1944	..	..	..	2,463,912	2,463,912
1945—					
Melbourne ..	..	..	..	421,151	421,151
Perth ..	..	..	..	1,978,886	1,978,886
Total, 1945	..	..	..	2,400,037	2,400,037
Aggregate—					
Sydney ..	144,435,550	4,781,000	149,216,550	7,574,408	156,790,958
Melbourne ..	147,283,131	946,780	148,229,911	29,125,710	177,355,621
Perth ..	100,384,197	307,338	100,751,535	57,403,422	104,154,957
Total to end of 1945 ..	398,102,878	6,095,118	404,197,996	94,103,540	498,301,536

(a) Value expressed at £3 17s. 10½d. per standard ounce.

7. **Price of Gold.**—In consequence of Great Britain's departure from the gold standard on 21st September, 1931, the London market value of gold immediately rose by about 17½ per cent. from £4 4s. 11d. to £4 19s. 7d. per fine ounce. Considerable fluctuations have since taken place, but during the years just prior to the 1939-45 War the price was steadily rising. At the outbreak of war the price in London was fixed at £stg.8 8s. od. per fine ounce.

The following table shows the average prices of gold and the average value of the sovereign in London and Australia for the years 1935-36 to 1944-45 and for each month from July, 1944 to June, 1945. The average price of gold in Australia is based on the Commonwealth Bank's buying price for gold lodged with the mints.

PRICE OF GOLD : LONDON AND AUSTRALIA.

Period.	London.		Australia.		
	Average price per fine oz.	Average value of Sovereign.	Average price per fine oz.	Sovereign.	
				Average value.	Equivalent to a premium of—
	£stg. s. d.	£stg. s. d.	£A. s. d.	£A. s. d.	%
1935-36 ..	7 0 9	1 13 2	8 14 0	2 1 0	105.0
1936-37 ..	7 0 10	1 13 2	8 15 3	2 1 3	106.2
1937-38 ..	7 0 0	1 13 0	8 13 10	2 0 11	104.6
1938-39 ..	7 6 9	1 14 7	9 2 9	2 3 0	115.0
1939-40 ..	8 4 10	1 18 8	10 8 4	2 9 1	145.4
1940-41 ..	8 8 0	1 19 7	10 13 5	2 9 2	145.8
1941-42 ..	8 8 0	1 19 7	10 11 4	2 8 7	142.9
1942-43 ..	8 8 0	1 19 7	10 9 0	2 8 0	140.0
1943-44 ..	8 8 0	1 19 7	10 9 0	2 8 0	140.0
1944-45 ..	8 8 3	1 19 7	10 11 10	2 8 9	143.8
1944-45—					
July ..	8 8 0	1 19 7	10 10 0	2 8 3	141.3
August ..	8 8 0	1 19 7	10 10 0	2 8 3	141.3
September ..	8 8 0	1 19 7	10 11 0	2 8 6	142.5
October ..	8 8 0	1 19 7	10 12 0	2 8 9	143.8
November ..	8 8 0	1 19 7	10 12 0	2 8 9	143.8
December ..	8 8 0	1 19 7	10 12 0	2 8 9	143.8
January ..	8 8 0	1 19 7	10 12 0	2 8 9	143.8
February ..	8 8 0	1 19 7	10 12 0	2 8 9	143.8
March ..	8 8 0	1 19 7	10 12 0	2 8 9	143.8
April ..	8 8 0	1 19 7	10 12 0	2 8 9	143.8
May ..	8 8 0	1 19 7	10 12 3	2 8 10	144.2
June ..	8 11 1	2 0 3	10 14 9	2 9 8	148.3

§ 3. Notes.

1. **General.**—In 1901 notes in circulation in Australia consisted of bank notes payable in gold coin and issued by the trading banks, and Queensland Treasury notes. Bank notes circulated in all States except Queensland; but were not legal tender. There were, however, some restrictions on their issue or other provisions for the protection of

the public. Queensland Treasury notes were issued by the Queensland Government and were legal tender in that State. These notes continued in circulation until 1910 when the Australian Notes Act 1910 and Bank Notes Tax Act 1910 were passed by the Commonwealth Parliament. The Australian Notes Act 1910 prohibited the circulation of State notes as money and the Bank Notes Tax Act 1910 imposed a tax of 10 per cent. per annum on "all bank notes issued or re-issued by any bank in the Commonwealth after the commencement of this Act, and not redeemed". These Acts put an end to the issue of notes by the trading banks and the Queensland Treasury. The Commonwealth Bank Act 1945 prohibited the issue of notes by any person (including a bank).

2. **The Australian Note Issue.**—(i) *General.* The Australian Notes Act 1910 gave the Governor-General power to authorize the Commonwealth Treasurer to issue Australian notes in denominations of 10s., £1, £5, £10 and any multiple of £10. These notes were to be legal tender and payable in gold coin on demand at the Commonwealth Treasury at the Seat of Government. The Act came into force by proclamation on 1st November, 1910 and notes were issued forthwith. The control of the Australian note issue remained with the Commonwealth Treasury until 1920 when it was transferred to the Note Issue Department of the Commonwealth Bank. This department was controlled by a separate Board of Directors until 1924 when it was brought under the authority of the newly created general Board of Directors of the Bank. This form of control continued until 1945 when the management of the Commonwealth Bank was reorganized and placed, together with the Note Issue Department, under a Governor assisted by an Advisory Council.

The Commonwealth Bank Act 1920 authorized the issue of a 5s. note. However, notes of this denomination have not been issued. As stated above, Australian notes originally issued were payable in gold coin on demand at the Commonwealth Treasury at the Seat of Government. When the control of the Australian Note Issue was transferred to the Note Issue Department of the Commonwealth Bank, it was provided that the notes should "bear the promise of the Treasurer to redeem the notes in gold coin . . . on demand at the Head Office of the Commonwealth Bank". By the Commonwealth Bank Act 1932 this provision was abolished and since 1932 Australian notes have not contained any such promise and are merely stated to be legal tender in the Commonwealth and in all Territories under the control of the Commonwealth.

Australian notes are legal tender to any amount within Australia and have been issued in denominations of 10s., £1, £5, £10, £20, £50, £100 and £1,000.

(ii) *Gold Reserve against the Note Issue.* The Australian Notes Act 1910 provided that the Treasurer should hold, in gold coin, a reserve of an amount not less than one-fourth of the notes issued up to £7,000,000 and an amount equal to the excess over £7,000,000. In 1911, this provision was amended and the Treasurer was required only to hold, in gold coin, an amount not less than one-fourth of the total amount of Australian notes issued. In June, 1931, to permit further shipments of gold to meet short term obligations in London, an amendment to the Commonwealth Bank Act provided for the reduction of the gold reserves for the two years ended 30th June, 1933, to not less than 15 per cent. The reserve was again to be increased, by graduated steps, to 25 per cent. by 30th June, 1935. In May, 1932, a further amendment to the Commonwealth Bank Act provided that the reserve might be held "in gold or in English sterling or partly in gold and partly in English sterling". English sterling was defined as "currency which is legal tender in the United Kingdom, and includes—(a) balances standing to the credit of the Bank at the Bank of England or at any other of its bankers in London; (b) Bills of Exchange or advances secured by Bills of Exchange which—(i) are payable in the United Kingdom in currency which is legal tender in the United Kingdom; (ii) will mature in not more than three months, and the security for the payment of which Bills is, in the opinion of the Bank, satisfactory; and (c) Treasury Bills or other securities of the United Kingdom which will mature in not more than three months". The provisions for the holding of a reserve in gold or English sterling against the note issue were abolished by the Commonwealth Bank Act 1945.

(iii) *Australian Notes in Circulation.* Particulars of the average notes in circulation and of the gold reserve for the years 1938-39 and 1941-42 to 1944-45 are given in the following table :—

AUSTRALIAN NOTE ISSUE.

Particulars. . .	Average of monthly statements for year—				
	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
Notes held by—	£	£	£	£	£
Banks	15,454,157	14,693,296	15,265,006	15,573,089	16,668,398
Public	33,117,633	68,774,909	107,716,362	149,334,812	177,054,394
Total	48,571,790	83,468,205	122,981,368	164,907,901	193,722,792
Gold and English Sterling Reserve	16,020,486	21,905,190	31,524,276	42,448,196	50,752,183
Percentage of Reserve on	%	%	%	%	%
Total Issue	33.0	26.2	25.6	25.7	26.2

The value of the average of each of the several denominations of Australian notes in circulation in 1914 and later years are given in the *Finance Bulletins* issued by this Bureau.

(iv) *Commonwealth Bank—Note Issue Department.* The following statement shows particulars of liabilities and assets of the Note Issue Department of the Commonwealth Bank as at 30th June, 1945.

NOTE ISSUE DEPARTMENT : 30th JUNE, 1945.

Liabilities.		Assets.	
	£		£
Notes in circulation ..	186,463,872	Gold and English sterling ..	50,857,661
Reserve for Notes not presented	189,554	Debentures and other Securities	144,169,104
Special Reserve—premium on gold sold	6,754,955	Other Assets	70,591
Other Liabilities	1,688,975		
Total Liabilities	195,097,356	Total Assets	195,097,356

Until the end of 1943 all the net profits of the Note Issue Department, except £2,000,000 paid between 1926 and 1933 to the Capital Account of the Rural Credits Department, were paid to the Commonwealth Treasury. The Commonwealth Bank Act amendment of 1943 which established a Mortgage Bank Department (see page 627), provided for the transfer of £1,000,000 from the Special Reserve and for an annual payment of £150,000 from the Note Issue Profits towards the capital of the new Department, the latter payments to cease when the capital amounts to £4,000,000. In 1944-45 the net profits of the Note Issue Department amounted to £3,098,472, of which £2,948,472 was paid to the Commonwealth Treasury and £150,000 to the capital account of the Mortgage Bank Department.

§ 4. Legal Tender Extant.

Accurate information regarding the amount of legal tender in circulation is not available, but the following table gives an estimate of the amount of legal tender extant about the middle of the years 1939 and 1942 to 1945.

ESTIMATED LEGAL TENDER EXTANT: AUSTRALIA.

Particulars.	1939.	1942.	1943.	1944.	1945.
Australian Notes(a)—	£'000.	£'000.	£'000.	£'000.	£'000.
Held by Banks	14,829	16,126	14,492	15,253	15,934
Held by Public	32,701	86,488	123,864	174,258	169,810
Coin—Gold—Held by Banks(b)	79	63	68	69	59
Held by Public .. .. .	..	..	..	..	..
Silver—Held by Banks(b)	2,508	1,847	3,819	3,884	4,340
Held by Public	6,843	10,923	13,984	18,141	20,503
Bronze—Held by Banks(b)	132	67	76	195	225
Held by Public	521	743	886	1,045	1,123
Total	57,613	116,257	157,189	212,845	211,994

(a) Last Monday in June.

(b) At 30th June.

The figures given above for silver coin represent the total issues of Australian silver coin less the excess of exports of Australian coins to New Zealand and the Pacific Islands over the reimports of Australian coins. The amount of English coin in circulation in Australia is negligible, and as it is not possible to ascertain accurately its volume, no allowance has been made for it. The figures given for bronze coins refer to the total issues of Australian coin, the small amount of United Kingdom coin in circulation being disregarded. Notes of trading banks outstanding, included in previous issues of the Year Book, have been excluded as they are not legal tender.

C. BANKING.

§ 1. Cheque-Paying Banks.

1. **Banking Legislation.**—(i) *Commonwealth Legislation.* (a) *General.* Under Section 51 of the Commonwealth Constitution the Commonwealth Parliament has power to legislate with respect to "Banking, other than State banking, also State banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money". The principal Commonwealth Acts at present in force relating to Banking are—

- (a) The Commonwealth Bank Act 1945 which replaced the Commonwealth Bank Act 1911–1943 and provides for the constitution and management of the Commonwealth Bank and Commonwealth Savings Bank and the management of the Australian note issue; and
- (b) The Banking Act 1945 which provides for the regulation of banking and for the protection of the currency and of the public credit of the Commonwealth.

(b) *The Banking Act 1945. General.* The Banking Act 1945 is the first comprehensive piece of legislation passed by the Commonwealth Parliament under its powers to legislate with respect to banking. Except for war-time regulations, earlier Commonwealth legislation in relation to banking was limited in its effect and related

only to certain phases of banking. The most important constituents of the earlier legislation were the Bank Notes Tax Act 1910 designed to stop the issue of bank notes by the trading banks, and the Commonwealth Bank Act 1911-1943 providing for the establishment and management of the Commonwealth Bank, the Australian note issue, the control of the exportation and mobilization of gold, the settling of bank clearings and the collection of banking statistics. The Banking Act 1945 was assented to on 3rd August, 1945, and came into operation on 21st August, 1945. It applies to all banks except State banks operating in Australia or Territories of the Commonwealth.

Objects. In introducing the Bill for the Banking Act 1945 the Commonwealth Treasurer stated that the objects of the Bill were :—

- (a) To provide a legal framework, uniform throughout Australia, for regulating the banking system. (b) To safeguard depositors of the banks from loss.
- (c) To provide for the co-ordination of banking policy under the direction of the Commonwealth Bank. (d) To control the volume of credit in circulation and bank interest rates. (e) To mobilize and to provide machinery for the control of the foreign exchange and gold resources of the Australian economy”.

Provisions. The main provisions of the Act are as follows : (a) *Authority to carry on Banking Business.* Banking business can only be carried on by a body corporate in possession of an authority in writing granted by the Governor-General. A company which is not a bank but which conducts some banking business may be granted an exemption from some or all of the provisions of the Act. (b) *Protection of Depositors.* If it appears that a bank may be unable to meet its obligations or is about to suspend payments, the Commonwealth Bank may “assume control of and carry on the business of that bank”. Provision is made for the banks to supply to the Commonwealth Bank such information relating to their financial stability as is required. Each bank is required, unless otherwise authorized by the Commonwealth Bank, to hold assets (other than goodwill) in Australia of a value not less than the amount of its deposit liabilities in Australia. (c) *Special Deposits.* Banks may be required by the Commonwealth Bank to lodge deposits in a special account with the Commonwealth Bank. The amount to be deposited is fixed each month by the Commonwealth Bank but no bank may be required to deposit an amount sufficient to make the total of its special account exceed the sum of any increase in its assets since 28th August, 1945, and its special deposit on that date under the National Security (War-time Banking Control) Regulations. Interest is paid on these deposits at a rate not exceeding 17s. 6d. per cent. per annum determined by the Commonwealth Bank. The special deposits can only be withdrawn with the permission of the Commonwealth Bank. (d) *Mobilization of Foreign Currency.* All banks may be required to transfer to the Commonwealth Bank a proportion (determined by the Commonwealth Bank) of their excess receipts of foreign currency in respect of their Australian business during any period. (e) *Advances and Investments.* The Commonwealth Bank may determine a general policy in relation to advances to be followed by Banks. Banks may not, except with the consent of the Commonwealth Bank, purchase or subscribe to Commonwealth, State and local and semi-governmental securities, and securities listed on a Stock Exchange in Australia. (f) *Foreign Exchange.* The Governor-General may make regulations for the control of foreign exchange including the fixing of rates of exchange. (g) *Gold.* In Part IV. of the Act provision is made for the mobilization and control of gold if it is necessary for the protection of the currency or of the public credit of the Commonwealth. (h) *Interest Rates.* The Commonwealth Bank may, with the approval of the Commonwealth Treasurer, make regulations for the control of rates of interest payable to or by the banks or other persons in the course of banking business carried on by them. (i) *Other.* Other provisions of the Banking Act 1945 relate to the supply of statistics and other information by banks, the settlement of clearing balances between the banks, investigation of the accounts of banks by the Auditor-General, and restrictions on the use of the words “bank” or “savings bank” in relation to a business. Although a bank may be required to supply information relating to its financial stability and information needed for the determination of banking policy, it cannot be required to disclose details relating to the account of any individual customer.

(c) *War-time Banking Control.* The National Security (War-time Banking Control) Regulations which operated from 26th November, 1941, were superseded on 29th August, 1945 by the Banking Act 1945. These Regulations related in general to persons or corporations (other than a bank of the Commonwealth or a State) engaged in the business of banking and in particular to the fourteen trading banks, and provided for the holding of a licence to carry on business. Advances made by the trading banks had to conform to the policy laid down by the Commonwealth Bank, and the purchase of securities and subscription to loans were only possible with its consent. Each trading bank was required to lodge in a special account with the Commonwealth Bank so much of its surplus investible funds as was determined by the Commonwealth Bank. Withdrawals from this special account could be made only with the consent of the Commonwealth Bank. "Surplus investible funds" were defined as the amount by which the total assets in Australia at any time exceeded the average of the total assets in Australia at the weekly balancing days during August, 1939. A rate of interest determined by the Commonwealth Bank but not exceeding a rate fixed by the Treasurer from time to time, and designed to secure that the trading profits of the trading bank should not exceed the average of its annual trading profits for the three years ended 31st August, 1939, was payable upon funds in this special account. The trading banks were further required to prepare and publish annual profit and loss accounts and balance sheets according to the specification of the Treasurer. In common with any other person or corporation which accepted deposits of money, they were required to furnish statements in respect of their business. The Auditor-General was empowered to investigate and report periodically on the accounts, books and transactions of every trading bank.

On 14th March, 1942, by order under the National Security (Economic Organization) Regulations, maximum rates of interest were fixed on fixed deposits, bank overdrafts, savings bank deposits, loans to local authorities, and loans by pastoral companies, life assurance companies, building societies and co-operative societies. These rates have since been varied by the Commonwealth Bank through orders operating from 12th January, 1944, 9th August, 1944, and 1st December, 1945.

(ii) *State Legislation.* State banking legislation relates to the incorporation of banks, the constitution and management of State banks and the collection and publication of returns for the protection of depositors. The Acts under which the various banks are incorporated differ. While most of the older banks were incorporated by special Act or Charter, e.g., the Bank of New South Wales by Act of Council 1817; the Bank of Australasia by Royal Charter; the Bank of Adelaide by Act of the South Australian Parliament; and the Bank of New Zealand by Act of the General Assembly of New Zealand, the newer banks are generally registered under a "Companies Act" or some equivalent Act. This is also the case with those banks which were reconstructed after the crisis of 1893. State banks constituted under State Acts transacting general banking business are the Rural Bank of New South Wales, the State Bank of South Australia and the Rural and Industries Bank of Western Australia. Banks transacting business in any State were obliged under the State laws to furnish a quarterly statement of their assets and liabilities. In most States this statement was published in the *Government Gazette*. Since the Banking Act 1945 came into operation the banks have been relieved in most States of their obligation to furnish this return.

2. *Royal Commission on Monetary and Banking Systems.*—A Royal Commission was appointed by the Commonwealth Government in November, 1935 to inquire into the monetary and banking systems in operation in Australia and to report whether any, and if so what, alterations were desirable in the interests of the people of Australia as a whole, and the manner in which any such alterations should be effected. The Commission presented its report on 15th July, 1937, and a summary of the recommendations appears in Official Year Book No. 31, p. 1010.

3. *Presentation of Banking Statistics.*—In presenting statistical tabulations relating to average liabilities and assets, it is considered desirable to show the figures for the Commonwealth Bank separately from those of other cheque-paying banks. The

aggregate business of all trading banks is, however, given in additional paragraphs. The figures quoted in all cases refer to the average liabilities and assets within the Commonwealth of Australia.

4. **Banks Transacting Business in Australia, Capital Resources, etc.** The paid-up capital of cheque-paying banks, together with their reserve funds, their profits and the amount of their last dividends are shown in the following table. The information relates to the balance-sheet last preceding 31st October, 1945. It must be noted that in the case of some of the banks the reserve funds are invested in Government securities, while in other cases they are used in the ordinary business of the banks, and in a few instances they are partly invested and partly used in the business :—

CHEQUE-PAYING BANKS : CAPITAL RESOURCES, 1944-45.

Bank.	Paid-up Capital.	Reserves.	Balance on Profit and Loss Account. (a)	Total Shareholders' Funds.	Reserve Liability of Shareholders.	Profits for year.	Dividends. (b)
	£	£	£	£	£	£	£
Australian Banks—							
Bank of New South Wales	8,780,000	6,150,000	448,811	15,378,811	8,780,000	552,907	526,800
Commercial Banking Co. of Sydney Ltd.	4,739,013	4,300,000	304,297	9,343,310	4,739,012	359,777	355,426
National Bank of Australasia Ltd. ..	5,000,000	3,300,000	306,394	8,606,394	1,800,000	292,362	287,500
Commercial Bank of Australia Ltd. ..	4,117,350	2,250,000	235,173	6,602,523	..	227,423	226,361
Ballarat Banking Co. Ltd.	159,000	130,000	9,555	298,555	141,000	12,295	8,745
Queensland National Bank Ltd.	1,750,000	860,000	67,376	2,677,376	..	79,551	78,750
Brisbane Permanent Building and Banking Co. Ltd.	750,000	250,000	51,061	1,051,061	..	40,459	37,500
Bank of Adelaide ..	1,250,000	1,000,000	76,712	2,326,712	1,250,000	67,540	62,500
Bank of Australasia ..	4,500,000	4,500,000	359,421	9,359,421	4,500,000	200,666	191,250
Union Bank of Australia Ltd.	4,000,000	4,850,000	272,579	9,122,579	8,000,000	179,425	175,416
English, Scottish and Australian Bank Ltd.	3,000,000	3,400,000	367,045	6,767,045	2,000,000	140,419	122,250
Total Australian Joint Stock Banks	38,045,363	30,990,000	2,498,424	71,533,787	31,210,012	2,152,824	2,072,498
Other Cheque-paying Banks—							
Commonwealth Bank of Australia—							
General Bank ..	4,000,000	4,369,159	..	8,369,159	..	956,596	..
Rural Credits ..	2,000,000	508,625	..	2,508,625	..	36,807	..
Mortgage Bank ..	1,749,569	3,266	..	1,752,835	..	16,452	..
Rural Bank of New South Wales (Rural Department only) ..	612,091,263	43,204,017	..	15,295,280	..	40,831	..
State Bank of South Australia (General Department only) ..	(e) 822,280	150,000	-126,676	845,604	..	3,767	..
Bank of New Zealand ..	6,328,125	3,575,000	556,256	10,459,381	..	378,887	393,066

(a) Includes dividends declared but not paid at date of balance-sheet. (b) Dividends paid and payable out of profits earned during 1944-45. (c) Total stocks and debentures issued including liability in respect of deposits taken over by the Commonwealth Bank in December, 1931. (d) Includes £2,171,119 Special Reserve Account established under Section 12 (2) of Rural Bank of New South Wales Act 1932. (e) Capital advanced by Government of South Australia and Sale of Bonds.

NOTE.—Minus sign (—) indicates loss.

5. **Commonwealth Bank.**—(i) *General.* A brief account of the foundation of the Commonwealth Bank is given in Nos. 6 to 10 of the Official Year Book. The Bank began operations in the Savings Bank Department in July, 1912, and general banking was commenced in January, 1913. In 1920 the Australian note issue passed to the control of the Bank.

The scope of the Bank was considerably broadened in 1924 when the control was entrusted to a Board of Directors consisting of a Governor, the Secretary to the Treasury and six others who were or had been actively engaged in agriculture, commerce, finance or industry. Commencing without capital the Bank had accumulated profits

amounting to about £4,500,000 in 1924. Of this sum £4,000,000 was transferred to the capital fund of the Bank, and authority was given to increase the capital to £20,000,000. The profits of the Bank, until the establishment of the Mortgage Bank Department, were distributed in the proportion of one-half to the Bank Reserve Fund and the other half to the National Debt Sinking Fund. This excluded the net earnings of the Note Issue Department, which were paid to the Consolidated Revenue Fund. Under the terms of the Commonwealth Bank Act, as amended in March, 1943, one-quarter of the profits of the General Bank Department were to be paid to the Reserve Fund, one-quarter to the Mortgage Bank Department and one-half to the National Debt Sinking Fund. Of the net profits of the Note Issue Department, £150,000 per annum was to be paid to the Mortgage Bank Department and the balance to the Consolidated Revenue Fund. The distribution of the profits of the Savings Bank was not affected by the amendment.

A Rural Credits Department of the Bank was created by amending legislation in 1925 for the purpose of making short-term credit available for the orderly marketing of primary produce. Portion of the capital for the new department to the extent of £2,000,000 was provided by an annual appropriation of 25 per cent. of the net profits of the note issue. One half of the profits of the Rural Credits Department is paid to Reserve Fund and one half to the Development Fund.

The Commonwealth Bank Act 1927 provided for the separation of the Savings Bank Department from the General Bank and its establishment as a separate institution, and the transfer to the "Commonwealth Savings Bank of Australia" of all assets and liabilities of the Savings Bank Department. The date on which this amending Act became operative was fixed by proclamation as 9th June, 1928. The new institution was to be managed by a Commission consisting of three Commissioners, one of whom was to be a member of the Bank Board. The Commissioners were never appointed and this provision was omitted in the Commonwealth Bank Act 1945.

A Mortgage Bank Department of the Bank was established by the Commonwealth Bank Act 1943, assented to on 20th March, 1943. The object is to make long term loans, at reasonable rates of interest and repayment, to primary producers for uses in connexion with primary production or to discharge prior mortgages or charges. Loans are to be secured by mortgages, and have a duration of between five and forty-one years inclusive. They are not to exceed 70 per cent. of the value of the estate or interest in land on which the loans are secured, or £5,000, whichever is the less. Provision was made for the repayment of interest and principal by equal half-yearly instalments of six months' interest together with an amount of not less than one-half of one per cent of the original amount lent, the balance outstanding, if any, to be paid at the end of the period of the loan. Provision was also made for the repayment of loans before maturity. The capital of the Mortgage Bank Department is not to exceed £4,000,000 and will be derived as follows:—(a) £1,000,000 from the Note Issue Department's special reserve from the sale of gold; (b) one-quarter of the annual net profits of the General Bank Department (now Central Banking Business); and (c) £150,000 per annum from the net profits of the Note Issue Department. Payments from the last two sources will cease when the capital amounts to £4,000,000. In addition, provision exists for advances to be made to the Mortgage Bank Department by the Commonwealth Bank, the Commonwealth Savings Bank and the Treasurer, who may borrow money for this purpose. The net profits of the Mortgage Bank Department will be credited to a fund to be called the Mortgage Bank Department Reserve Fund.

(ii) *Commonwealth Bank Act 1945. (a) General.* The constitution of the Commonwealth Bank was revised by the Commonwealth Bank Act 1945, assented to on 3rd August, 1945. All provisions of the Act came into operation on 2nd January, 1946, except those relating to the Industrial Finance Department and Housing Loans which came into operation on 21st August, 1945.

In introducing the Bill for the Commonwealth Bank Act 1945, the Commonwealth Treasurer said that the main purposes of the Bill were:—(a) To strengthen the central banking functions of the Bank. (b) To ensure that the financial policy of the Bank will be in harmony with the main decisions of Government policy and in the interests of the people of Australia. (c) To ensure the development and expansion of its general banking

functions by active competition with the trading banks. (d) To return control of the Bank to the Governor who will be assisted by an Advisory Council. (e) To assist in developing small industries and in enabling the people to secure homes.”

The general functions of the Bank are set out in the form of a charter in section 8 of the Act which states :—

“8. It shall be the duty of the Commonwealth Bank, within the limits of its powers, to pursue a monetary and banking policy directed to the greatest advantage of the people of Australia, and to exercise its powers under this Act and the Banking Act 1945 in such a manner as, in the opinion of the Bank, will best contribute to :—

- (a) the stability of the currency of Australia ;
- (b) the maintenance of full employment in Australia ; and
- (c) the economic prosperity and welfare of the people of Australia.”

Provision is made for the Bank to inform the Treasurer of its monetary and banking policy. If there is a difference of opinion between the Bank and the Government on monetary and banking policy, the Treasurer and Bank shall endeavour to reach an agreement. Failing such an agreement the Bank shall give effect to the policy laid down by the Government.

(b) *Central Banking Business.* Under the powers it possessed under the Commonwealth Bank Act 1911–1943 and under its war-time powers under the National Security Regulations, the Commonwealth Bank had gradually assumed the functions of a Central Bank. Part III. of the Act formally constitutes the Commonwealth Bank as a Central Bank and grants the Bank the necessary powers to carry on the business of a Central Bank. The capital for its Central Banking Business is to be £4,000,000 to be provided from the existing Capital and Reserve Fund of the Commonwealth Bank and such other sums as are transferred from the Reserve Fund. The profits of the Central Banking Business are to be distributed as follows :—

- (a) One quarter to be placed to the credit of the Commonwealth Bank Reserve Fund ;
- (b) one quarter to be paid to the Mortgage Bank Department ;
- (c) one-half to be paid to the National Debt Sinking Fund.

When the capital of the Mortgage Bank Department has reached £4,000,000 the share of profits payable to that Department will be credited to the Commonwealth Bank Reserve Fund.

(c) *General Banking Division.* Under the Commonwealth Bank Act 1911–1943, no provision was made for the separation of the general banking business of the bank from its central banking business. Under the Commonwealth Bank Act 1945 the General Banking Division was set up to carry on the general banking business of the bank. The accounts and transactions of this division are to be kept separate and distinct from the other accounts of the Bank. The capital of the General Banking Division is to be £4,000,000 to be provided from the existing Capital and Reserve Fund of the Bank and such other sums as are transferred from the General Banking Division Reserve Fund. The profits of the General Banking Division are to be distributed as follows :—

- (a) One half to be placed to the credit of the General Banking Division Reserve Fund, and
- (b) one-half to be paid to the National Debt Sinking Fund.

(d) *Management.* The management of the Bank is placed under the Governor of the Bank. The Governor is to be assisted by an Advisory Council consisting of the Secretary to the Department of the Treasury, the Deputy Governor of the Bank, an additional representative of the Department of the Treasury and two officers of the Bank. The Advisory Council is to advise the Governor with respect to the monetary and banking policy of the Bank and such other matters as the Governor refers to it.

(e) *Rural Credits Department.* The Rural Credits Department, established in 1925, is continued in the same form under this Act. The power of the Bank to issue debentures for the purposes of this department has been discontinued and the range of securities against which the department may make advances has been increased.

(f) *Mortgage Bank Department.* The Mortgage Bank Department established in 1943 is continued in the same form under this Act.

(g) *Industrial Finance Department.* The functions of the Industrial Finance Department established under this Act are :—

- “(a) to provide finance for the establishment and development of industrial undertakings ;
- (b) to assist in the establishment and development of industrial undertakings ; and
- (c) to provide advice on the operations of industrial undertakings with a view to promoting the efficient organization and conduct thereof.”

To exercise these functions the Bank may, through the Industrial Finance Department, lend money and purchase and sell shares or securities in an industrial undertaking. The capital of this department shall be £4,000,000. Two million pounds is to be provided from the Special Reserve Account of the Note Issue Department and the other £2,000,000 is to be transferred as required from the other funds of the Bank. The Treasurer, the Bank and the Savings Bank may advance money to the Industrial Finance Department. The amount that may be advanced by the Bank is limited to £1,000,000. The profits of the Department are to be placed to the credit of the Industrial Finance Department Reserve Fund. This Department commenced business on 2nd January, 1946.

(h) *Housing Loans.* Special provisions are included to permit the Bank, through the General Banking Division, to make loans to individuals or building societies for the erection or purchase of homes or for the discharge of mortgages on homes. These loans must be made at the lowest possible rate of interest. Loans to individuals are to be on *crédit foncier* terms, to be secured by first mortgage on an estate or interest in land owned by the borrower and to be repaid in periods of not less than five years nor more than 35 years. Loans to building societies are to be made on such security and on such terms and conditions as the Bank determines.

(i) *The Commonwealth Bank Service.* Conditions of appointment and service of officers of the Bank are set out in Part XIII. of the Act. Appointments to the service of the Bank shall be made on the results of a competitive examination. Provision is made for the classification of positions in the bank and for the protection of officers with respect to promotions, tenure of office, dismissal and punishment.

(j) *Other.* The Note Issue Department and the Commonwealth Savings Bank are continued in the same form by the Act. Alterations to the earlier provisions affecting these sections are dealt with in the case of the Note Issue Department in the part of this chapter relating to Currency, and in the case of the Commonwealth Savings Bank in § 2 of this Part.

(iii) *Aggregate Profits.* Particulars of the aggregate net profits, excluding those of the Note Issue Department, from the initiation of the Bank to the end of each of the financial years 1938–39 and 1941–42 to 1944–45 are as follows :—

COMMONWEALTH BANK : AGGREGATE PROFITS.

Aggregate Net Profit to Date.

30th June.	General Bank.	Savings Bank.	Rural Credits Department.	Mortgage Bank Department.	Total.
	£	£	£	£	£
1939	9,655,733	4,892,178	638,733	..	15,186,644
1942	11,025,113	6,021,324	772,255	..	17,818,692
1943	11,898,252	6,413,923	815,541	..	19,128,716
1944	12,883,356	6,912,706	854,368	Dr. 13,186	20,637,244
1945	13,839,952	7,714,880	891,175	3,266	22,449,273

Up to 30th June, 1945, £7,280,813 had been paid to the National Debt Sinking Fund from the profits of the Bank.

(iv) *Liabilities within Australia.* The average liabilities within Australia for various quarters from 1939 to 1945 are given in the table below :—

COMMONWEALTH BANK OF AUSTRALIA(a) : AVERAGE LIABILITIES WITHIN AUSTRALIA.

Quarter Ended—	Bills in Circulation.	Balances Due to Other Banks. (b)	Special War-time Deposits of Other Banks.	Deposits.			Total Liabilities.
				Not Bearing Interest.(c)	Bearing Interest.	Total Deposits.	
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
June, 1939 ..	351	18,746	..	18,128	43,274	61,402	80,499
" 1942 ..	1,136	33,076	37,286	29,816	57,132	86,948	158,446
" 1943 ..	625	25,885	100,844	50,953	98,683	149,636	276,990
" 1944 ..	964	32,864	179,454	60,618	82,461	143,079	356,361
Sept., 1944 ..	1,016	31,614	183,832	64,361	101,202	165,563	382,025
Dec., 1944 ..	787	33,231	191,928	56,629	94,309	150,938	376,884
Mar., 1945 ..	739	35,245	220,087	55,156	106,800	161,956	418,027
June, 1945 ..	725	30,527	241,193	59,956	99,294	159,250	431,695

(a) Excludes Commonwealth Savings Bank Banks."

(b) Includes deposits of " Other Cheque-paying Banks." (c) Government "Set-off" Accounts (Interstate) deducted.

(v) *Assets within Australia.* Particulars of the average assets within Australia for various quarters from 1939 to 1945 are given in the following table :—

COMMONWEALTH BANK OF AUSTRALIA(a) : AVERAGE ASSETS WITHIN AUSTRALIA.

Quarter Ended—	Coin.	Bullion.	Austrian Notes.	Government and Municipal Securities. (b)	Landed and House Property.	Balances Due from Other Banks.	Notes and Bills of Other Banks.	Advances, Discounts, Overdrafts, and all other Assets (not including Contingent Assets). (c)	Total Assets.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
June, 1939 ..	1,057	340	3,936	44,935	694	122	43	18,948	70,075
" 1942 ..	557	2,370	3,159	100,057	491	2,035	567	32,129	141,365
" 1943 ..	2,153	1,165	3,737	213,961	399	133	1,112	27,027	249,687
" 1944 ..	2,275	3,570	3,513	243,432	366	169	1,379	27,800	282,504
Sept., 1944 ..	2,658	5,534	3,283	238,774	413	67	1,982	32,111	284,822
Dec., 1944 ..	3,207	7,542	3,570	234,257	379	111	1,175	32,787	274,028
Mar., 1945 ..	3,706	9,420	3,992	260,760	398	101	1,317	28,851	308,545
June, 1945 ..	3,142	11,381	3,957	271,417	493	84	1,550	27,818	319,842

(a) Excludes Commonwealth Savings Bank Account (Interstate) deducted.

(b) Includes Treasury Bills.

(c) Government "Set-off"

6. *Other Cheque-paying Banks.*—(i) *Liabilities within Australia.* The average liabilities within Australia of "other cheque-paying banks" for various quarters from 1939 to 1945 are given in the following table :—

OTHER CHEQUE-PAYING BANKS : AVERAGE LIABILITIES WITHIN AUSTRALIA.

Quarter Ended—	Notes in Circulation.	Bills in Circulation.	Balances Due to Other Banks.	Deposits.			Total Liabilities.
				Not Bearing Interest.	Bearing Interest. (a)	Total.	
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
June, 1939 ..	167	3,098	1,617	122,098	207,287	329,385	334,267
" 1942 ..	167	3,954	1,116	197,260	198,514	395,774	401,011
" 1943 ..	167	4,526	998	263,656	203,136	466,792	472,483
" 1944 ..	167	4,810	1,059	325,063	226,351	551,414	557,450
Sept., 1944 ..	167	4,725	1,133	320,379	227,648	548,027	554,052
Dec., 1944 ..	167	5,014	1,273	342,635	229,799	572,434	578,888
Mar., 1945 ..	167	4,714	1,116	368,940	233,423	602,363	608,360
June, 1945 ..	166	5,143	1,115	371,912	231,279	603,191	609,615

(a) Includes Inscribed Deposit Stock of the E. S. and A. and Queensland National Banks.

(ii) *Assets within Australia.* The average assets in Australia of "other cheque-paying banks" for various quarters from 1939 to 1945 are given below :—

OTHER CHEQUE-PAYING BANKS : AVERAGE ASSETS WITHIN AUSTRALIA.

Quarter Ended—	Coin and Bullion.	Australian Notes and Cash with Commonwealth Bank.	Government and Municipal Securities. (a)	Special War-time Deposits with Commonwealth Bank.	Landed and House Property.	Balances Due from Other Banks.	Notes and Bills of Other Banks.	Advances, Discounts, Over-drafts, and all Other Assets.	Total Assets.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
June, 1939 ..	3,020	28,110	48,886	..	10,493	2,776	2,211	313,740	409,236
" 1942 ..	1,552	38,964	98,372	37,286	10,956	4,305	3,588	291,722	486,745
" 1943 ..	1,843	32,408	138,288	100,844	10,824	4,620	3,967	264,653	557,447
" 1944 ..	1,992	38,350	155,658	179,456	10,672	5,668	4,249	243,064	639,109
Sept., 1944 ..	2,050	36,395	157,911	183,840	10,097	5,509	4,178	231,953	635,333
Dec., 1944 ..	2,080	38,663	175,891	191,930	10,674	5,349	4,687	229,574	658,848
Mar., 1945 ..	2,104	41,013	189,909	220,088	10,663	5,111	4,185	217,825	690,898
June, 1945 ..	2,067	35,316	172,073	241,193	10,678	5,227	4,568	223,887	695,009

(a) Includes Treasury Bills.

7. All Cheque-paying Banks.—(i) *General.* Particulars of the aggregate average liabilities and assets within Australia of all cheque-paying banks in Australia, including the Commonwealth Bank of Australia, are given in the following paragraphs.

(ii) *Liabilities within Australia.* The following table shows the average liabilities within Australia of all cheque-paying banks for various quarters from 1939 to 1945.

ALL CHEQUE-PAYING BANKS (a) : AVERAGE LIABILITIES WITHIN AUSTRALIA.

Quarter Ended—	Notes in Circulation.	Bills in Circulation.	Balances due to Other Banks. (b)	Special War-time Deposits of Trading Banks.	Not Bearing Interest. (c)	Bearing Interest. (d)	Total.	Total Liabilities.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
June, 1939 ..	167	3,449	20,363	..	140,226	250,561	390,787	414,766
" 1942 ..	167	5,090	34,102	37,286	227,076	255,646	482,722	559,457
" 1943 ..	167	5,151	26,883	100,844	311,009	301,819	616,428	749,173
" 1944 ..	167	5,774	33,923	179,454	385,681	308,812	694,493	913,811
Sept., 1944 ..	167	5,741	32,747	183,832	384,740	328,850	713,590	936,077
Dec., 1944 ..	167	5,801	34,504	191,928	399,264	324,108	723,372	955,772
Mar., 1945 ..	167	5,453	36,361	220,087	424,096	340,223	764,319	1,026,387
June, 1945 ..	166	5,868	31,642	241,193	431,868	330,573	762,441	1,041,310

(a) Excludes Commonwealth Savings Bank. (b) Includes deposits of other banks other than special war-time deposits of trading banks with Commonwealth Bank. (c) Government "Set-off" Accounts, Interstate (Commonwealth Bank) deducted. (d) Includes Inscribed Deposit Stock of the E.S. and A. and Queensland National Banks.

(iii) *Assets within Australia.* The average assets within Australia of all cheque-paying banks for various quarters from 1939 to 1945 were as follows :—

ALL CHEQUE-PAYING BANKS (a) : AVERAGE ASSETS WITHIN AUSTRALIA.

Quarter Ended—	Coin and Bullion.	Australian Notes and Cash with Commonwealth Bank.	Government and Municipal Securities. (b)	Special War-time Deposits with Commonwealth Bank.	Landed and House Property.	Balances Due from Other Banks.	Notes and Bills of Other Banks.	Advances and all Other Assets. (c)	Total Assets.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
June, 1939 ..	4,417	32,046	93,821	..	11,187	2,898	2,254	332,688	479,311
" 1942 ..	4,479	42,123	198,429	37,286	11,447	6,340	4,155	323,851	628,110
" 1943 ..	5,161	36,145	352,249	100,844	11,223	4,753	5,079	291,680	807,134
" 1944 ..	7,837	41,863	399,090	179,456	11,038	5,837	5,628	270,864	921,613
Sept., 1944 ..	10,243	39,678	396,685	183,840	11,110	5,576	6,159	267,064	920,355
Dec., 1944 ..	12,828	42,233	470,149	191,930	11,053	5,460	5,862	253,361	932,876
Mar., 1945 ..	15,228	45,004	450,670	220,088	11,061	5,213	5,502	246,676	999,442
June, 1945 ..	16,590	39,273	443,490	241,193	11,171	5,311	6,118	251,705	1,014,851

(a) Excludes Commonwealth Savings Bank. (b) Includes Treasury Bills. (c) Government "Set-off" Accounts, Interstate (Commonwealth Bank) deducted.

(iv) *Cash Reserve Ratios.* The following table shows for the quarter ended June of each of the years 1936 to 1945 the percentages of cash on liabilities "at call" and "total liabilities" respectively for the Commonwealth Bank and the other cheque-paying banks. These percentages relate throughout to business within Australia.

(a) *Commonwealth Bank.* Cash reserves comprise coin, bullion and Australian notes, "Call" liabilities comprise deposits not bearing interest and balances due to other banks. Commencing with the quarter ended June, 1942, percentages have been calculated by using (i) a "call" figure which includes special war-time deposits; and (ii) a "call" figure which excludes special war-time deposits.

(b) *Other Cheque-paying Banks.* Cash reserves comprise coin, bullion, Australian notes and cash with the Commonwealth Bank, while "call" liabilities include deposits not bearing interest and notes in circulation. Commencing with the quarter ended June, 1942, percentages have been calculated by using (i) a "cash" figure which includes special war-time deposits with the Commonwealth Bank; and (ii) a "cash" figure which excludes this item. Particulars relating to the Rural Bank of New South Wales have been excluded in all cases.

It is not strictly correct to assume that a division of deposits with cheque-paying banks into those bearing interest and not bearing interest would in all cases coincide with a definite division into fixed deposits and current accounts respectively, but in the absence of the data required to permit of an accurate apportionment, such a division has been adopted for the purposes of this analysis.

CHEQUE-PAYING BANKS : CASH RESERVE RATIOS.

Quarter Ended June—				On Liabilities "At Call".		On Total Liabilities.	
				Commonwealth Bank.	Other Cheque-paying Banks. (a)	Commonwealth Bank.	Other Cheque-paying Banks. (a)
				%	%	%	%
1936	..	..	..	21.7	28.1	10.0	10.3
1937	..	..	..	12.8	32.1	6.6	12.0
1938	..	..	..	13.8	27.7	6.3	10.2
1939	..	..	..	14.5	25.4	6.6	9.3
1940	..	..	..	7.2	28.1	3.9	10.9
1941	..	..	..	6.6	23.0	3.4	9.7
				(b)	(c)	(d)	(e)
1942	..	..	..	9.7	6.1	20.3	39.3
1943	..	..	..	9.2	4.0	12.7	51.3
1944	..	..	..	10.0	3.9	12.1	67.6
1945	..	..	..	20.4	5.6	9.9	75.5
						4.3	6.1
							10.0
							19.3
							28.6
							39.6
							46.0

(a) Excludes Rural Bank of New South Wales. (b) Excludes special war-time deposits as "Call" liabilities. (c) Includes special war-time deposits as "Call" liabilities. (d) Excludes special war-time deposits as cash reserves. (e) Includes special war-time deposits as cash reserves.

(v) *Advances, and Advances and Securities. Percentage on Total Deposits.* The percentages of advances, and of advances and securities on total deposits, for the Commonwealth Bank, the other cheque-paying banks, and for all cheque-paying banks, are shown in the following table. In addition, the percentage of special war-time deposits with the Commonwealth Bank on total deposits is shown for "other cheque-paying banks". The data on which the percentages are based relate only to business within Australia.

For the Commonwealth Bank and other cheque-paying banks, "Advances" are represented by the item "Advances, discounts, overdrafts, and all other assets," which are combined with "Government and Municipal Securities" (including Treasury Bills)

under the heading "Advances and Securities". "Deposits" include deposits of all kinds except those of other cheque-paying banks with the Commonwealth Bank, i.e., "Cash with Commonwealth Bank" and "Special War-time Deposits".

In computing the percentages in this table, particulars relating to the Rural Bank of New South Wales have been excluded.

CHEQUE-PAYING BANKS : PERCENTAGE OF ADVANCES, AND ADVANCES AND SECURITIES ON TOTAL DEPOSITS.

Quarter Ended June—	Advances on Total Deposits.			Advances and Securities on Total Deposits.			Special War-time Deposits with Commonwealth Bank on Total Deposits, Other Cheque-paying Banks.(a)
	Commonwealth Bank.	Other Cheque-paying Banks.(a)	All Cheque-paying Banks.(a)	Commonwealth Bank.	Other Cheque-paying Banks.(a)	All Cheque-paying Banks.(a)	
	%	%	%	%	%	%	%
1936 ..	20.6	90.2	81.1	108.3	105.2	105.6	..
1937 ..	20.9	83.8	74.8	101.4	97.8	98.3	..
1938 ..	27.1	89.4	78.6	90.0	102.8	100.7	..
1939 ..	30.9	90.9	85.1	104.0	105.5	105.2	..
1940 ..	46.6	82.2	75.7	87.9	105.9	102.6	..
1941 ..	29.4	77.8	68.9	74.7	105.7	100.0	..
1942 ..	37.0	70.0	64.0	152.0	94.7	105.1	9.5
1943 ..	18.1	53.8	45.1	161.0	83.1	102.1	21.8
1944 ..	19.4	41.9	37.2	189.6	69.5	94.4	32.8
1945 ..	17.5	35.1	31.4	187.9	62.9	89.2	40.4

(a) Excludes Rural Bank of New South Wales.

(vi) *Deposits per head of Population.* Particulars of the average deposits per head of population are given in the following table for the quarters ended June of each of the five years 1939 and 1942 to 1945. The figures given, which are based on the aggregate for all cheque-paying banks in each State, are not adjusted on account of the Government "set-off" accounts (interstate) of the Commonwealth Bank.

ALL CHEQUE-PAYING BANKS : DEPOSITS(a) PER HEAD OF POPULATION.

Quarter Ended June—	N.S.W.(b)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Terr.	Total.
	£	£	£	£	£	£	£	£
1939 ..	54.9	70.3	49.8	49.2	43.5	42.5	40.5	56.6
1942 ..	63.4	88.2	57.4	60.7	56.7	46.5	158.1	68.2
1943 ..	70.0	107.4	91.8	70.3	70.8	55.9	145.8	85.4
1944 ..	85.5	115.5	111.0	80.5	75.7	66.1	223.2	95.8
1945 ..	96.3	129.4	117.0	86.3	79.2	74.3	192.6	105.7

(a) Excludes deposits with Commonwealth Savings Bank.

(b) Includes Australian Capital Territory.

(vii) *Proportion of Non-Interest Bearing Deposits to Total Deposits.* The following table shows, for each State, the proportion of non-interest bearing deposits to the total deposits with all cheque-paying banks during the quarter ended June of each of the years 1939 and 1942 to 1945. Government "set-off" accounts (interstate) of the Commonwealth Bank have been deducted in arriving at the percentage for all States combined.

ALL CHEQUE-PAYING BANKS: PROPORTION OF NON-INTEREST BEARING DEPOSITS^(a) TO TOTAL DEPOSITS.

Quarter ended June—	N.S.W. ^(b)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Terr.	Total.
	%	%	%	%	%	%	%	%
1939 ..	39.3	30.7	41.0	28.7	41.7	43.3	65.6	35.9
1942 ..	53.6	43.6	47.6	38.2	47.6	48.2	69.7	47.0
1943 ..	58.0	43.7	58.6	39.7	48.4	49.3	22.4	51.0
1944 ..	62.2	47.5	65.4	42.8	54.0	55.6	45.9	55.6
1945 ..	63.7	49.4	63.5	45.8	64.4	60.8	67.8	57.6

(a) Excludes deposits with Commonwealth Savings Bank.

(b) Includes Australian Capital Territory.

8. **Deposit Rates.**—Particulars of interest rates for fixed deposits since 1932 are given hereunder. The rates paid by the Commonwealth Bank have not always been the same as those paid by the other trading banks.

BANK FIXED DEPOSIT RATES.

Dates from which rates operated.	Deposits for—			
	Three Months.	Six Months.	Twelve Months.	Two Years.
	Per cent. per annum.	Per cent. per annum.	Per cent. per annum.	Per cent. per annum.
8th March, 1932	2½	3	3½	4
May–June, 1932 (a)	2½	3	3½	3½
1st November, 1932 (b)	2½	2½	3	3½
7th February, 1933	2	2½	2½	3
12th April, 1934	2	2½	2½	2½
9th August, 1934	1½	2½	2½	2½
11th October, 1934	1½	2	2½	2½
17th December, 1934	1	1½	2½	2½
24th March, 1936 (c)	2	2½	2½	3
24th January, 1940	1½	2½	2½	2½
28th May, 1940	1½	2	2½	2½
22nd September, 1941	1½	1½	2	2½
14th March, 1942	1½	1½	1½	2
17th January, 1944	1	1½	1½	2
11th August, 1944	1½	1½	1½	1½
1st December, 1945	1½	1½	1	(d) 1½

(a) All Banks did not take simultaneous action.

(b) Bank of New South Wales reduced the rates for 6, 12 and 24 months terms by one-quarter of 1 per cent. from 23rd August, 1932.

(c) Commonwealth Bank only. Bank of New South Wales from 2nd March and Bank of Adelaide from 3rd March, 1936.

(d) On first £10,000; rate on amount in excess of £10,000 is 1 per cent.

9. **Clearing House Returns.**—(i) *Annual Clearings.* Particulars of the aggregate bank clearings for each capital city, compiled from information supplied by the Commonwealth Bank, Sydney, are given in the following table. Since October, 1929, transactions connected with the issue and redemption of Treasury Bills have resulted in largely inflated clearings. These transactions are of an abnormal character, and for the years 1941 to 1945 are shown separately. A weekly average of bank clearings is published in the *Monthly Review of Business Statistics* and the *Quarterly Summary of Australian Statistics*.

CLEARING HOUSE RETURNS : VALUE OF BILLS, CHEQUES, ETC.

Year.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Total.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1870 (a) ..	..	64,532	..	..	..	..	64,532
1880 (a) ..	..	85,877	..	..	..	..	85,877
1890 ..	..	315,190	..	..	..	..	315,190
1900 ..	144,080	159,949	..	..	..	..	304,029
1905 ..	189,826	187,632	32,255	..	..	..	409,713
1910 ..	274,344	261,383	61,060	..	..	..	596,787
1915 ..	357,803	299,295	96,291	60,950	..	..	814,339
1920 ..	764,546	725,006	160,539	166,011	80,758	..	1,896,860
1925 ..	909,114	803,083	192,968	171,092	101,085	25,557	2,202,809
1930 (b) ..	872,390	697,641	167,999	125,684	89,034	23,092	1,975,840
1935 (b) ..	775,986	724,327	181,889	132,689	94,705	24,713	1,934,309
1937 (b) ..	937,334	844,488	204,493	157,596	104,891	29,874	2,278,676
1938 (b) ..	942,423	838,609	217,217	159,015	109,102	30,786	2,297,152
1939 (b) ..	932,367	812,563	222,988	152,334	107,089	33,808	2,261,239
1940 (b) ..	1,074,825	985,407	251,326	179,314	119,989	36,662	2,647,523
1941—							
Ordinary Trans-							
actions ..	1,139,353	1,096,037	243,937	195,757	116,565	36,469	2,828,118
Treasury Bill							
Transactions..	268,003	31,870	..	..	..	..	299,873
Total ..	1,407,356	1,127,907	243,937	195,757	116,565	36,469	3,127,991
1942—							
Ordinary Trans-							
actions ..	1,248,500	1,263,869	275,639	220,475	125,116	40,385	3,173,984
Treasury Bill							
Transactions..	272,495	17,085	..	..	..	..	289,580
Total ..	1,520,995	1,280,954	275,639	220,475	125,116	40,385	3,463,564
1943—							
Ordinary Trans-							
actions ..	1,442,344	1,411,724	335,137	248,295	137,599	45,853	3,620,952
Treasury Bill							
Transactions..	245,321	2,486	..	..	..	..	247,807
Total ..	1,687,665	1,414,210	335,137	248,295	137,599	45,853	3,868,759
1944—							
Ordinary Trans-							
actions ..	1,499,603	1,446,607	369,016	266,123	144,699	52,136	3,778,184
Treasury Bill							
Transactions..	218,877	1,398	..	..	..	..	220,275
Total ..	1,718,480	1,448,005	369,016	266,123	144,699	52,136	3,998,459
1945—							
Ordinary Trans-							
actions ..	1,512,418	1,483,450	366,210	268,255	151,652	57,409	3,839,394
Treasury Bill							
Transactions..	..	948	..	..	..	..	948
Total ..	1,512,418	1,484,398	366,210	268,255	151,652	57,409	3,840,342

(a) Excludes payments in coin.
in 1929.

(b) Excludes Treasury Bill transactions since their introduction

(ii) *Index of Annual Clearings.* The following index of bank clearings in each capital city for the years 1930, 1935 and 1937 to 1945 has been computed from the figures in the previous paragraph. The base used is the average of the years 1927 to 1929. Clearings connected with the issue and redemption of Treasury Bills have been excluded and no adjustment has been made on account of amalgamations of banking interests.

INDEX OF BANK CLEARINGS.

(Base: Average of Years 1927 to 1929 = 1,000.)

Year.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Total.
1927-29 ..	1,000	1,000	1,000	1,000	1,000	1,000	1,000
1930 ..	841	872	861	743	789	841	844
1935 ..	748	905	933	784	839	900	826
1937 ..	904	1,055	1,049	931	929	1,088	973
1938 ..	909	1,048	1,114	940	967	1,121	981
1939 ..	899	1,015	1,143	900	949	1,234	966
1940 ..	1,036	1,231	1,289	1,060	1,063	1,335	1,130
1941 ..	1,098	1,370	1,251	1,157	1,033	1,328	1,208
1942 ..	1,204	1,580	1,413	1,303	1,109	1,470	1,355
1943 ..	1,390	1,765	1,718	1,467	1,220	1,669	1,546
1944 ..	1,446	1,808	1,892	1,573	1,282	1,898	1,613
1945 ..	1,458	1,854	1,878	1,585	1,344	2,090	1,639

10. *Rates of Exchange.*—(i) *Australia on London.* The following statement gives particulars of the telegraphic transfer rates of exchange, Australia on London, in operation since 10th March, 1930. In earlier issues particulars were given of the rates in operation since 16th October, 1913. The details given show the value in Australia of £100 in London according to the rates quoted by the Associated Banks for buying and selling £100 in London on telegraphic transfer. In December, 1931, the Commonwealth Bank Board undertook the responsibility of regulating sterling exchange and announcing rates each week.

RATES OF EXCHANGE: AUSTRALIA ON LONDON, TELEGRAPHIC TRANSFER.

Date on which Rate began to operate.					Buying.	Selling.
					£ s. d.	£ s. d.
10th March, 1930 ..	..	..	..	..	103 10 0	104 2 6
24th March, 1930 ..	..	..	..	..	106 2 6	106 10 0
9th October, 1930 ..	..	..	..	..	108 10 0	109 0 0
6th January, 1931 ..	..	..	..	..	115 2 6	115 10 0
13th January, 1931 ..	..	..	..	..	118 0 0	118 7 6
17th January, 1931 ..	..	..	..	..	125 0 0	125 10 0
29th January, 1931 ..	..	..	..	..	130 0 0	130 10 0
3rd December, 1931 (a) ..	..	..	..	..	125 0 0	125 10 0

(a) Rates have remained unchanged since 3rd December, 1931.

(ii) *London and Australia on New York.* The average of the daily quotations of the London-New York and Australia-New York exchange rates are given for each month from January, 1939 to December, 1945, in the following table:—

LONDON AND AUSTRALIA-NEW YORK EXCHANGE RATES: AVERAGE RATE FOR EACH MONTH.

Month.	London on New York.			Australia on New York.		
	1939.	1940.	1941 to 1945.	1939.	1940.	1941 to 1945.
	\$ per £ Stg.	\$ per £ Stg.	\$ per £ Stg.	\$ per £ A.	\$ per £ A.	\$ per £ A.
January ..	4.669	4.030	4.030	3.708	3.196	3.198
February ..	4.686	4.030	4.030	3.727	3.197	3.198
March ..	4.686	4.030	4.030	3.727	3.197	3.198
April ..	4.681	4.030	4.030	3.724	3.198	3.198
May ..	4.682	4.030	4.030	3.723	3.198	3.198
June ..	4.683	4.030	4.030	3.725	3.198	3.198
July ..	4.682	4.030	4.030	3.724	3.198	3.198
August ..	4.610	4.030	4.030	3.680	3.198	3.198
September ..	4.046	4.030	4.030	3.225	3.198	3.198
October ..	4.030	4.030	4.030	3.193	3.198	3.198
November ..	4.030	4.030	4.030	3.193	3.198	3.198
December ..	4.030	4.030	4.030	3.193	3.198	3.198

(iii) *Interstate.* Exchange rates between the several capital cities of the States at 30th June, 1945 were as follows:—

INTERSTATE EXCHANGE RATES, 30th JUNE, 1945.

Between—	And—					
	New South Wales.	Victoria.	Brisbane and adjacent towns.	South Australia.	Perth and all but distant towns.	Tasmania.
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Sydney and New South Wales towns ..	..	2 6	2 6	5 0	7 6	5 0
Melbourne and Victorian towns ..	2 6	..	5 0	2 6	5 0	2 6
Brisbane and adjacent towns ..	2 6	5 0	..	7 6	10 0	7 6
Adelaide and South Australian towns ..	5 0	2 6	7 6	..	2 6	5 0
Perth and all but distant towns ..	7 6	5 0	10 0	2 6	..	7 6
Hobart and Tasmanian towns ..	5 0	2 6	7 6	5 0	7 6	..

§ 2. Savings Banks.

1. *General.*—The inauguration of Savings Banks in Australia dates from 1819, when a private Savings Bank was opened in Sydney. In 1832 the legislature created "the Savings Bank of New South Wales" under the control of trustees, and shortly after its establishment the funds of the private Savings Bank were transferred to the new institution. In the other States provision for placing deposits with Savings Banks dates from 1841 in Victoria; 1854 in Queensland; 1840 in South Australia; 1863 in Western Australia (a Savings Bank was opened in 1856 but was closed a year later); 1835 in Launceston; and 1845 in Hobart. These early banks functioned as trustee Savings Banks, but, with the exception of the Hobart and Launceston institutions, were later absorbed by or amalgamated with Government Savings Banks.

Post Office Savings Banks were established in all States from 1864 onwards. These were separate Government institutions except in South Australia, where the Post Office acted as agent for the Savings Bank. Since the Federation of the Australian States in 1900 Post Offices have been controlled by the Commonwealth Government, but they continued to act as Savings Bank agencies for the State institutions until the establishment of the Commonwealth Bank in 1912. They now act as agents for the Commonwealth Savings Bank.

Savings Banks at present operating are the Commonwealth Savings Bank (all States and Territories); State Savings Bank of Victoria; State Savings Bank of South Australia; and the two Trustee Banks—Hobart and Launceston.

2. **The Commonwealth Savings Bank.**—The Savings Bank Department of the Commonwealth Bank opened for business in Victoria on 15th July, 1912; in Queensland on 16th September, 1912; in the Northern Territory on 21st October, 1912; and in New South Wales, South Australia and Western Australia on 13th January, 1913. The Tasmanian State Savings Bank was absorbed by the Commonwealth Bank in January, 1913, the Queensland State Savings Bank was taken over in 1920 and the New South Wales and Western Australian State Savings Banks in 1931. The Savings Bank Department was separated from the General Bank on 9th June, 1928, and established as a separate institution known as the "Commonwealth Savings Bank". It has since then operated independently, publishing its own balance-sheets and profit and loss accounts. The Commonwealth Bank Act 1927, which provided for the establishment of the Commonwealth Savings Bank as a separate institution, provided for a Commission of three members to manage the Savings Bank. This Commission was never appointed and the Commonwealth Bank Act 1945 placed the control of the Commonwealth Savings Bank under the Governor of the Commonwealth Bank.

3. **Amalgamations.**—Particulars relating to the absorption by the Commonwealth Savings Bank of the Government Savings Banks of New South Wales, and the State Savings Bank of Western Australia are given in Official Year Book, No. 29.

4. **Extension of Facilities.**—The prime object of the foundation of Savings Banks in Australia was the encouragement of thrift, deposits of one shilling and upwards being accepted; nevertheless the facilities offered, while preserving the original object, have led to developments in another direction. Although depositors may not operate on their accounts by means of cheques, they have practically all the other advantages of a current account and in addition receive interest on their minimum monthly balances. No charge is made by the banks for keeping the accounts.

5. **Classification of Depositors' Balances.**—The classification of deposits published by Savings Banks does not permit of a fully detailed analysis with respect to Australia as a whole, but information supplied to the Royal Commission on Monetary and Banking Systems for all Savings Banks except the Hobart Trustee Savings Bank shows that at 30th June, 1936 the amount on deposit in accounts with balances of less than £100 represented 21 per cent. of the total deposits; balances of over £100 but under £250, 21 per cent.; over £250 but under £500, 23 per cent.; over £500 but under £1,000, 25 per cent.; while those of over £1,000 accounted for 10 per cent. School, Penny Bank and small inoperative accounts were excluded in determining the above percentages.

A similar classification as at 30th June, 1936, 1939 and 1945, but relating only to the combined State Savings Banks of Victoria and South Australia, is shown below.

At 30th June—				£100 and Under.	£101-£300.	£301-£500.	£501-£1,000.	Over £1,000.
				Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
1936	..	..	..	19.54	26.13	17.84	27.42	9.07
1939	..	..	..	20.27	27.15	17.90	26.14	8.54
1945	..	..	..	13.61	28.78	21.22	27.80	8.59

6. **Number of Accounts.**—At 30th June, 1945 the number of Savings Bank accounts in existence were as follows:—Commonwealth Savings Bank—operative, 3,371,008; inoperative, 1,570,359; State and Trustee Savings Banks—operative, 1,858,397; inoperative, 665,419. Generally, inoperative accounts are those with balances of less

than £1 which have not been operated on for a period of two years. It should be noted that the figures above relate to the number of accounts and not necessarily to the number of depositors.

7. Rates of Interest on Deposits.—The statements given hereunder show the rates of interest allowed at 30th June, 1936 to 1945 by State and Trustee Savings Banks and by the Commonwealth Savings Bank. From 14th March, 1942 the rates of interest paid by Savings Banks on deposits have been subject to National Security (Economic Organization) Regulations.

STATE AND TRUSTEE SAVINGS BANKS : INTEREST RATES ON DEPOSITS.

Particulars.	State Savings Banks.				Trustee Savings Banks.	
	Victoria.		South Australia. (a)		Hobart.	Launceston.
			£1,000.			
Interest-bearing Limit.	£1,000.		£1 to £500.	£501 to £1,000.	£300.	£300.
	%		%	%	%	%
Rates at 30th June—						
1936	2 ; 2½ (b)		2¾	2¾	2¾ ; 3 (c)	2¾ ; 3 (c)
1937	2 ; 2½ (b)		2¾	2¾	3 ; 3½ (c)	3 ; 3½ (c)
1938	2 ; 2½ (b)		2¾	2¾	3 ; 3½ (c)	3 ; 3½ (c)
1939	2 ; 2½ (b)		3 (d) ; 2¾ (e)	2½	3 ; 3½ (c)	3 ; 3½ (c)
1940	2 ; 2½ (b)		2¾ (d) ; 2½ (e)	2½	3 ; 3½ (c)	3 ; 3½ (c)
1941	2 ; 2½ (b)		2½	2¼	2¾ ; 3½ (c)	2¾ ; 3½ (c)
1942	2 (f) ; 1½ (g) ; 1¾ (b)		2¼	1¾	2¼	2¼
1943	2 (f) ; 1½ (g) ; 1¾ (b)		2¼	1¾	2¼	2¼
1944	2 (f) ; 1½ (g) ; 1¾ (b)		2¼	1¾	2¼	2¼
1945	2 (f) ; 1¾ (g) ; 1¾ (b)		2¼	1½	2¼	2¼

(a) Interest on deposits in accounts closed during the year is generally allotted at a lower rate than that applicable to accounts remaining open. (b) Deposit stock. (c) Deposits fixed for twelve months. (d) On balances up to £200. (e) On balances £201 to £500. (f) On balances £1 to £500. (g) On balances £501 to £1,000.

COMMONWEALTH SAVINGS BANK : INTEREST RATES ON DEPOSITS.

Rate at 30th June —	£1 to £500.	£501 to £1,300. (a)	Rate at 30th June—	£1 to £500.	£501 to £1,300. (a)
	%	%		%	%
1936	2	1¾	1941	2	1¾
1937	2	1¾	1942	2	1¾
1938	2	1¾	1943	2	1¾
1939	2	1¾	1944	2	1¾
1940	2	1¾	1945	2	1¾

(a) Up to 1941 the interest-bearing limit in all States except Queensland was £1,300. In Queensland it was £2,000. The limit since 1942 has been £1,000 in all States.

Rates of interest on deposits were fixed under National Security Regulations from 7th April, 1942 in relation to the Savings Bank of South Australia, and from 1st April, 1942 in relation to every other savings bank. For the Commonwealth Savings Bank and the State Savings Bank of Victoria maximum rates were fixed at 2 per cent. on the first £500 and 1½ per cent. on any further balance up to £1,000. On balances in excess of £1,000 no interest was to be paid, except in respect of friendly societies and similar bodies where it had been the custom to pay interest on the full balance. The rate of 2 per cent. was allowed in these cases. However, by arrangement between the banks, maximum rates are not paid on balances in excess of £2,000 in these accounts. Maximum rates for other savings banks were fixed at one-quarter per cent. higher than those for the Commonwealth Savings Bank and the State Savings Bank of Victoria. From 9th August, 1944, the maximum rate for any balance between £501 and £1,000 was reduced by ¼ per cent. for all savings banks.

8. **Statistical Returns.**—Commencing from July, 1931, monthly returns have been furnished by Savings Bank authorities, and the collated data are disseminated in the form of monthly press notices. In addition, the particulars are published in the *Quarterly Summary of Australian Statistics* and the *Monthly Review of Business Statistics*. The information given in the following paragraphs relates to the deposits at 30th June in each year. For convenience of reference the information has been grouped under the following headings :—

(i) All Savings Banks ; (ii) Commonwealth Savings Banks ; and (iii) State Savings Banks (including Trustee Banks in Tasmania).

9. **All Savings Banks.**—(i) *Particulars for Year 1944-45.* The following statement gives details of the business transacted by all savings banks for the year 1944-45 :—

ALL SAVINGS BANKS : PARTICULARS, 1944-45.

State or Territory.	Amount on Deposit at 30th June, 1944.	Excess of Deposits over Withdrawals during year.	Interest Added during year.	Amount on Deposit at 30th June, 1945.
	£'000.	£'000.	£'000.	£'000.
New South Wales	(a) 162,867	32,133	3,203	198,203
Victoria	153,887	25,253	3,009	182,149
Queensland	65,479	13,330	1,285	80,094
South Australia(b)	48,592	7,336	1,067	56,995
Western Australia	25,791	5,457	515	31,763
Tasmania	14,213	2,403	298	16,914
Australian Capital Territory ..	701	131	14	846
Total	471,530	86,043	9,391	566,964

(a) Includes deposits transferred from Papua and Territory of New Guinea Branches.

(b) Includes deposits transferred from Northern Territory.

(ii) *Deposits*—(a) 30th June, 1939 and 1942 to 1945. The following table shows for all savings banks the amount at credit of depositors and the average deposits per head of population at 30th June, 1939 and 1942 to 1945 :—

ALL SAVINGS BANKS : DEPOSITS.

30th June.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Terr.	A.C.T.	Total.
TOTAL.									
1939	£'000. 87,474	£'000. 80,461	£'000. 29,045	£'000. 27,397	£'000. 12,396	£'000. 8,396	£'000. 99	£'000. 319	£'000. 245,587
1942	(a) 94,538	94,226	31,214	(c) 30,616	13,821	9,472	(b)	388	274,275
1943	(a) 122,406	121,249	45,197	(c) 38,563	18,884	11,174	(b)	522	357,995
1944	(a) 162,867	153,887	65,479	(c) 48,592	25,791	14,213	(b)	701	471,530
1945	198,203	182,149	80,094	(c) 56,995	31,763	16,914	(b)	846	566,964

PER HEAD OF POPULATION.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1939	31 16 11	42 15 4	28 11 6	45 19 9	26 12 8	35 9 7	15 19 4	26 9 0	35 5 7
1942	433 8 5	47 17 2	30 1 6	449 13 9	29 7 8	39 9 6	(b)	31 7 8	38 4 7
1943	443 1 8	61 4 7	42 19 7	662 2 8	39 7 6	46 2 2	(b)	36 19 3	49 10 4
1944	456 14 7	70 0 7	61 9 2	677 9 6	53 2 8	57 18 3	(b)	48 10 4	64 10 8
1945	68 7 4	90 9 3	74 5 1	689 17 6	64 16 6	68 3 7	(b)	57 5 9	76 16 10

(a) See note (a) above.

(b) Included with South Australia.

(c) See note (b) above.

During the depression deposits remained about the low level of £193,000,000 until June, 1932, when with the amount at £197,966,000 there began a steady upward trend, which continued, with minor regressions only, until February, 1940, when deposits amounted to £246,503,000. Two war loans and the war savings certificate scheme were launched during the next five months. These were instrumental in reducing the level of deposits to £236,562,000 in July, 1940. To August, 1946, there was a regular monthly increase, broken occasionally by temporary declines coinciding with loan raisings. At the end of June, 1946, the amount on deposit was £663,554,000.

(b) *Deposits per head and Purchasing Power.* Particulars of the deposits per head of population, actual and adjusted to purchasing power by the application of retail price index-numbers at 30th June in each year from 1936 to 1945, are given in the following table. In calculating the index-numbers in this table the average of deposits per head of population at 30th June, 1937, 1938 and 1939 has been used as a base and made equal to 1,000. In previous issues the base year used for this table was 1928.

ALL SAVINGS BANKS : DEPOSITS PER HEAD OF POPULATION.

At 30th June—				Actual.		Adjusted to Purchasing Power. (a)	
				Deposits per head of population.	Index-Number.	Deposits per head of population.	Index-Number.
				£	1937-1939 = 1000	£	1937-1938 = 1000
1936	..	..	..	33.19.	958	35.20	1016
1937	..	..	..	33.78	975	34.75	1003
1938	..	..	..	34.87	1007	34.83	1006
1939	..	..	..	35.28	1018	34.35	991
1940	..	..	..	33.70	973	31.55	911
1941	..	..	..	35.52	1025	31.72	915
1942	..	..	..	38.25	1104	31.60	912
1943	..	..	..	49.52	1429	38.69	1116
1944	..	..	..	64.53	1863	51.23	1479
1945	..	..	..	76.84	2218	61.00	1761

(a) On the basis of the All Items ("C") Series of Retail Price Index-numbers for June quarter in each year. (Base: average of June quarters, 1937, 1938 and 1939 = 1,000.)

In interpreting the above figures it should be remembered that Savings Bank accounts are used to some extent by institutions and business people, as well as by individuals for the investment of personal savings. The relative extent to which Savings Bank accounts are used for business purposes, etc., may, and probably does fluctuate considerably from time to time.

10. *War Savings Certificates.*—In March, 1940 the War Savings Certificate Scheme was inaugurated, the first sales being made on 18th March. Certificates may be purchased in denominations of £1, £5, £10 and £50, the purchase prices being 16s., £4, £8, and £40 respectively. The date of full maturity is seven years after that of issue, but certificates may be cashed at any time, the amounts ranging, in the case of the £1 certificate, from 16s. 6d. at the end of the first year and before the end of two years to £1 at the end of seven years.

The total amount contributed, less amount repaid to those cashing their certificates, at 30th June of each of the years 1940 to 1946 was £6,100,000, £17,380,000, £26,171,000, £35,146,000, £43,721,000, £52,534,000 and £54,666,000.

II. Commonwealth Savings Bank.—(i) *Particulars for Year 1944-45.* Particulars for the States and Territories for the year 1944-45 are shown in the table below :—

COMMONWEALTH SAVINGS BANK : PARTICULARS, 1944-45.

State or Territory.	Amount on Deposit 30th June, 1944.	Excess of Deposits over Withdrawals during year.	Interest Added during year.	Amount on Deposit 30th June, 1945.
	£'000.	£'000.	£'000.	£'000.
New South Wales	(a) 162,867	32,133	3,203	198,203
Victoria	31,205	7,110	618	38,933
Queensland	65,479	13,330	1,285	80,094
South Australia (b)	8,474	1,863	168	10,505
Western Australia	25,791	5,457	515	31,763
Tasmania	4,814	1,095	97	6,006
Australian Capital Territory ..	701	131	14	846
Papua and New Guinea	(c)	85	1	86
Total	299,331	61,204	5,901	366,436

(a) Includes deposits transferred from Papua and Territory of New Guinea Branches.
deposits transferred from Northern Territory.

(b) Includes
(c) Included with New South Wales.

(ii) *Deposits—30th June, 1939 and 1942 to 1945.* The amount on deposit with the Commonwealth Savings Bank in each State, in the Territories of Papua and New Guinea, and in London at 30th June in each of the years 1939 and 1942 to 1945 was as follows :—

COMMONWEALTH SAVINGS BANK : DEPOSITS, 30TH JUNE.

Place of Deposit.	1939.	1942.	1943.	1944.	1945.
	£'000.	£'000.	£'000.	£'000.	£'000.
New South Wales	87,474	94,538	122,406	162,867	198,203
Victoria	11,242	16,910	23,731	31,205	38,933
Queensland	29,045	31,214	45,197	65,479	80,094
South Australia	3,167	4,684	6,311	8,474	10,505
Western Australia	12,396	13,821	18,884	25,791	31,763
Tasmania	2,358	2,705	3,542	4,814	6,006
Northern Territory	99	(a)	(a)	(a)	(a)
Australian Capital Territory ..	319	388	522	701	846
Total	146,100	164,260	220,593	299,331	366,350
Papua and New Guinea	209	(b)	(b)	(b)	86
London (c)	571	359	412	500	573
Grand Total	146,880	164,619	221,005	299,831	367,009

(a) Included with South Australia.
in the figures given in paras. 9 (i) and (ii) and 11 (i).

(b) Included with New South Wales.

(c) Not included

(iii) *Balance-sheet, 30th June, 1945.* Particulars of the liabilities and assets of the Commonwealth Savings Bank as at 30th June, 1945, were as follows :—

COMMONWEALTH SAVINGS BANK (a) : BALANCE-SHEET, 30TH JUNE, 1945.

Liabilities.	Assets.
£	£
Reserve Fund	Cash Balances and Money at
Depositors' Balances and	Short Call
Accrued Interest	Australian Notes and Coin
Contingency Account	Government Securities
other Liabilities	Securities of Municipal and
	Other Public Authorities
	Bank Premises
	Other Assets
Total	Total

(a) Includes London, Papua and Territory of New Guinea Branches.

(iv) *Profits.* Under the terms of the Savings Bank Amalgamation Agreements the profits of the Commonwealth Savings Bank in New South Wales, Queensland, Western Australia and Tasmania are equally divided between the Bank and the former controlling authorities in those States. After £600,855 had been so provided, the net profit of the Commonwealth Savings Bank during 1944-45 was £802,174, one-half of which was paid to the National Debt Sinking Fund and the remainder carried to reserves. The aggregate net profit from the inception of the bank to 30th June, 1945 was £7,714,880.

12. *State Savings Banks.*—(i) *Particulars for 1944-45.* Particulars of the transactions of all State Savings Banks for the year 1944-45 are given hereunder. Throughout the following tables the figures for Tasmania refer to the Trustee Savings Banks in Hobart and Launceston. Although the accounts of these institutions are made up for half-yearly periods ending 28th February and 31st August, the managements have furnished particulars of deposits as at 30th June.

STATE SAVINGS BANKS : PARTICULARS, 1944-45.

State.	Amount on Deposit at 30th June, 1944.	Excess of Deposits over Withdrawals during year.	Interest added during year.	Amount on Deposit at 30th June, 1945.
	£'000.	£'000.	£'000.	£'000.
Victoria	122,682	18,143	2,391	143,216
South Australia ..	40,118	5,473	899	46,490
Tasmania	9,399	1,308	201	10,908
Total	172,199	24,924	3,491	200,614

NOTE.—The State Savings Banks in New South Wales, Queensland, Western Australia and Tasmania have been absorbed by the Commonwealth Savings Bank.

(ii) *Deposits—30th June, 1939 and 1942 to 1945.* The following statement shows the amount on deposit with State Savings Banks at 30th June in each of the years 1939 and 1942 to 1945 :—

STATE SAVINGS BANKS : DEPOSITS AT 30TH JUNE.

State.	1939.	1942.	1943.	1944.	1945.
	£'000.	£'000.	£'000.	£'000.	£'000.
Victoria	69,219	77,316	97,517	122,682	143,216
South Australia ..	24,230	25,932	32,252	40,118	46,490
Tasmania	6,038	6,766	7,633	9,399	10,908
Total	99,487	110,014	137,402	172,199	200,614

(iii) *Assets, 30th June, 1945.* At 30th June, 1945 the assets of all State Savings Banks amounted to £214,583,836, distributed as shown hereunder :—

STATE SAVINGS BANKS : ASSETS, 30th JUNE, 1945.

Particulars.	Victoria.	South Australia.	Tasmania.	Total.
	£	£	£	£
Government Securities	78,547,942	31,222,284	6,102,717	115,872,943
Municipal and Other Public Securities	17,389,323	295,193	1,602,928	19,287,444
Mortgages	1,496,857	4,222,473	1,482,760	7,202,090
Outstanding Interest, Dividends and Rents	938,672	318,715	107,640	1,365,027
Landed and House Property ..	757,075	466,702	23,000	1,246,777
Fixed Deposits	45,052,000	11,897,000	1,770,000	58,719,000
Cash in hand, in transit and on Current Account	8,477,093	1,430,749	951,888	10,859,730
All other Assets	29,417	1,052	356	30,825
Total Assets	152,688,379	49,854,168	12,041,289	214,583,836

(a) At 31st August, 1945. See par. 12 (i).

(iv) *Profit and Loss Accounts, 1944-45.* Details of the profit and loss accounts of the several State Savings Banks for the year 1944-45 are given in the following table :—

STATE SAVINGS BANKS : PROFIT AND LOSS ACCOUNTS, 1944-45.

Particulars.	Victoria.	South Australia.	Tasmania.	Total.
	£	£	£	£
<i>Dr.</i>				
Interest allotted to Depositors ..	2,206,939	898,965	218,291	3,324,195
Provision for accrued Interest on Depositors' Balances	225,510	60,000	..	285,510
Amount carried to Reserves and Depreciation Funds	300,000	206,787	56,000	562,787
Writing off Bank Premises .. ..	..	(b)	3,233	3,233
Expenses of Management	712,678	221,668	50,301	984,647
All other Expenses	81,888	25,898	13,700	121,486
Balance carried forward	149,001	130,245	103,414	382,660
Total	3,676,016	1,543,563	444,939	5,664,518
<i>Cr.</i>				
Balance brought forward	156,570	(c) 175,815	102,414	434,799
Interest, Dividends, Rents, and all other Receipts	3,519,446	1,367,748	342,525	5,229,719
Total	3,676,016	1,543,563	444,939	5,664,518

(a) Year ended 31st August, 1945: see par. 12 (i).

(b) Bank premises written off from reserve fund.

(c) Includes reserve brought forward from 1943-44 (provision for interest accrued on depositors' balances from 7th to 30th June, 1944, £50,000).

D. COMPANIES.

§ 1. General.

Statistics available in regard to registered companies relate to (a) Trustees, Executors and Agency Companies; (b) Registered Building and Investment Societies; and (c) Registered Co-operative Societies.

§ 2. Trustees, Executors and Agency Companies.

The following table shows, for the years 1939 and 1942 to 1945, particulars of the assets and liabilities of certain trustee companies transacting business in Australia and New Zealand. Figures for the year 1939 have been obtained from returns supplied to the Commonwealth Bureau of Census and Statistics, while those for the years 1942 to

1945 have been extracted from a summary of the last published balance-sheets as shown in the *Australasian Insurance and Banking Record*. Individual items are therefore not entirely comparable. Details of assets of trust funds administered are shown for the year 1939, but for the years 1942 to 1945 totals for nine only of the 23 offices are available.

TRUSTEES, EXECUTORS AND AGENCY COMPANIES, AUSTRALIA.

Particulars.	1939.	1942.	1943.	1944.	1945.
Number of Companies	20	23	23	23	23
Liabilities—	£	£	£	£	£
Capital paid-up	1,312,202	1,408,452	1,408,452	1,408,452	1,408,452
Reserves and undistributed Profits ..	1,235,750	1,302,802	1,317,012	1,327,604	1,331,200
Other Liabilities	150,960	507,300	603,638	618,991	714,707
Total Liabilities	2,698,912	3,218,554	3,329,102	3,355,047	3,454,359
Assets—					
Government and Municipal Securities ..	730,935	940,739	910,366	910,060	910,248
Loans on Mortgage	397,944	536,652	501,133	493,838	488,576
Other Loans and Advances	75,141	(b)	(b)	(b)	(b)
Real Property	1,148,566	1,084,627	1,083,913	1,080,768	1,080,556
Deposits in Banks	147,717	(c) 200,026	(c) 197,710	(c) 155,957	(c) 238,395
Other Assets	198,609	456,510	509,665	564,290	554,345
Total Assets	2,698,912	3,218,554	3,329,102	3,355,047	3,454,359
Assets of Trust Funds Administered—(d)	£'000.	£'000.	£'000.	£'000.	£'000.
Australian Government and Municipal Securities	68,515	} Not available.			
British and Foreign Government and Municipal Securities	1,342				
Loans on Mortgage	30,977				
Other Loans and Advances	2,713				
Shares in Companies	59,351				
Real Property	51,732				
Deposits in Banks	8,958				
Other Assets	13,409				
Total Trust Fund Assets	236,997	(e) 161,968	(e) 166,966	(e) 171,683	(e) 175,216

(a) Includes fixed deposits and deposits with Government. (b) Included with other assets.
 (c) Cash. (d) Includes particulars of trust funds administered by Public Trustees in 1939 only.
 (e) Nine offices only.

§ 3. Registered Building and Investment Societies.

1. Summary.—Returns have been received relating to 322 Societies, but the information is not exhaustive, as particulars regarding unimportant organizations are not included. Compilation of these statistics was discontinued in New South Wales and South Australia during the war. The figures shown relate to the latest year for which information is available.

REGISTERED BUILDING AND INVESTMENT SOCIETIES: SUMMARY.

Particulars.	N.S.W. 1939-40.	Vic. 1944.	Q'land. 1941-42.	S. Aust. 1940.	W. Aust. 1943-44.	Tas. 1943-44.
Societies making returns—						
Permanent .. No.	7	21	7	6	6	4
Terminating .. No.	248	2	5	13	3	..
Total .. No.	255	23	12	19	9	4
Number of shareholders ..	(a) 41,929	10,772	15,428	10,532	18,305	5,403
„ shares ..	(b) 452,217	852,479	1,101,507	41,629	(c)	48,021
„ borrowers ..	(d) 6,133	13,213	8,230	2,773	3,605	1,535
Income for year from interest, etc. .. £	678,354	403,337	135,522	29,705	104,480	44,779
Working expenses for year .. £	133,657	252,098	133,778	9,860	16,369	6,908
Amount of deposit during year .. £	379,768	366,584	58,521	123,589	220,891	8,173
Repayment of loans during year .. £	649,332	1,175,737	476,543	88,812	349,689	133,429
Loans granted during year .. £	63,810,552	414,995	491,178	86,979	124,078	66,685

(a) Includes 17,877 shareholders in Star Bowkett and 20,672 in other terminating societies.
 (b) Includes 154,157 shares in Star Bowkett and 264,175 in other terminating societies and excludes 2 investment societies. (c) Not available. (d) Permanent Societies only. (e) Includes £3,165,174 for other terminating societies.

2. **Liabilities and Assets.**—Particulars of liabilities and assets in respect of the periods as in the foregoing table are shown below.

REGISTERED BUILDING AND INVESTMENT SOCIETIES : LIABILITIES.

State.	Paid-up Capital or Subscriptions.	Reserve Funds.	Deposits.	Bank Overdrafts and other Liabilities.	Total Liabilities.
	£	£	£	£	£
New South Wales ..	2,970,813	692,147	764,619	a 9,832,182	14,259,761
Victoria ..	2,414,674	1,120,678	2,648,162	286,610	6,470,124
Queensland ..	2,049,588	68,093	15,348	104,389	2,237,418
South Australia ..	580,607	106,534	114,644	7,464	809,249
Western Australia ..	1,224,307	41,587	68,966	78,461	1,413,321
Tasmania ..	486,691	124,043	222,342	15,092	848,168

(a) Includes £9,580,297 for other terminating societies.

REGISTERED BUILDING AND INVESTMENT SOCIETIES : ASSETS.

State.	Advances on Mortgage.	Landed and House Property, Furniture, etc.	Cash in Hand and on Deposit and other Assets.	Total Assets.
	£	£	£	£
New South Wales ..	a13,638,924	(b) 228,111	392,726	14,259,761
Victoria ..	5,201,251	155,535	1,113,338	6,470,124
Queensland ..	2,187,087	16,259	34,072	2,237,418
South Australia ..	715,203	25,856	68,190	809,249
Western Australia ..	1,185,054	17,055	211,212	1,413,321
Tasmania ..	542,424	9,450	296,294	848,168

(a) Includes £10,688,125 for other terminating societies.

(b) Permanent societies only.

§ 4. Co-operative Societies.

1. **General.**—Returns relating to Co-operative Societies are divided into three classes—(i) those engaged in the manufacture and marketing of primary products and trade requirements; (ii) those engaged in retailing general household requirements

and (iii) those engaged in activities covered by both classes (i) and (ii). The first class may be described briefly as Producers' Co-operative Societies and the second as Consumers' Co-operative Societies. The particulars given for New South Wales relate to societies registered under the Co-operation Act 1923-1938. The figures shown relate to the latest year for which information is available.

CO-OPERATIVE SOCIETIES: SUMMARY.

Particulars.	N.S.W. 1939-40. (a)	Vic. 1943-44.	Q'land. 1942-43.	S.A. 1940.	W.A. 1940-41.	Tas. 1943-44.
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PRODUCERS' SOCIETIES.

Number of Societies	129	50	119	36	37	10
" Branches	(b)	22	63	2	24	16
" Members	57,268	40,892	64,680	8,339	13,073	9,025
Gross Turnover (Sales) ..	£ 18,371,770	4,318,078	15,551,224	1,090,509	1,752,805	877,080
Other Income	£ 104,648	327,290	445,187	173,733	664,919	40,991
Total Income	£ 18,476,418	4,645,368	15,996,411	1,264,242	2,417,724	918,071
Total Purchases during Year ..	£ 15,402,200	3,004,577	12,769,421	893,595	1,570,626	627,971
Other Expenditure	£ 2,738,533	939,111	2,942,386	360,170	720,602	324,094
Total Expenditure	£ 18,140,799	4,003,688	15,711,807	1,253,765	2,291,228	952,065
Rebates and Bonuses	£ ..	3,837	71,415	41,251	2,363	5,718
Dividends on Share Capital ..	£ 38,180	23,585	36,349	9,048	13,114	3,994

CONSUMERS' SOCIETIES.

Number of Societies	43	18	11	8	5	3
" Branches	(b)	9	11	43	..	3
" Members	44,933	10,383	6,196	45,015	2,715	554
Gross Turnover (Sales) ..	£ 2,832,160	644,592	467,038	1,111,654	171,758	78,737
Other Income	£ 52,455	17,261	5,275	22,762	3,587	2,302
Total Income	£ 2,884,615	661,853	472,313	1,134,416	175,345	81,129
Total Purchases during Year ..	£ 2,202,589	512,250	398,423	890,819	140,944	63,879
Other Expenditure	£ 535,161	96,756	54,528	204,036	32,307	14,080
Total Expenditure	£ 2,737,750	609,006	452,951	1,094,855	173,251	77,968
Rebates and Bonuses	£ 185,472	31,219	5,348	52,339	862	..
Dividends on Share Capital ..	£ 18,786	6,285	1,640	16,013	1,583	953

SOCIETIES WHICH ARE BOTH PRODUCERS' AND CONSUMERS'.

Number of Societies	8	4	3	43	..
" Branches	5	11	1	12	..
" Members	3,726	4,670	591	5,875	..
Gross Turnover (Sales) ..	£ 1,353,804	1,185,089	149,735	624,213	..
Other Income	£ 11,766	8,286	30,643	29,943	..
Total Income	£ 1,365,570	1,193,375	180,378	654,156	..
Total Purchases during Year ..	£ 1,082,753	973,498	149,535	542,849	..
Other Expenditure	£ 269,430	181,521	24,045	97,832	..
Total Expenditure	£ 1,352,183	1,155,019	173,580	640,681	..
Rebates and Bonuses	£ 5,642	3,414	5,019	12,247	..
Dividends on Share Capital ..	£ 3,250	2,065	1,452	4,400	..

(a) Particulars relate to societies registered under Co-operation Act 1923-1938.

(b) Not available.

2. **Liabilities and Assets.**—The next table gives the liabilities and assets for the latest year for which information is available :—

CO-OPERATIVE SOCIETIES : LIABILITIES AND ASSETS.

Particulars.	N.S.W.(a) 1939-40.	Vic. 1943-44.	Q'land. 1942-43.	S.A. 1940.	W.A. 1940-41.	Tas. 1943-44.
PRODUCERS' SOCIETIES.						
Liabilities—	£	£	£	£	£	£
Paid-up Capital	1,097,101	1,000,940	1,483,626	201,753	272,932	106,010
Loan Capital	(b)	123,523	616,701	264,640	210,260	34,577
Bank Overdrafts	1,029,716	633,105	937,621	165,823	24,777	131,240
Accumulated Profits	165,132	259,686	85,335	6,906	32,812	36,845
Reserve Funds	1,148,546	360,919	2,071,319	368,825	208,812	105,978
Sundry Creditors	1,660,258	557,194	2,508,375	340,508	302,753	15,574
Other Liabilities	53,263	156,922	491,256	455,499	463,036	
Total Liabilities	4,935,621	2,894,076	8,034,250	1,918,140	1,481,930	463,036
Assets—						
Land and Buildings	2,497,189	1,322,223	1,576,388	216,357	420,964	129,809
Machinery, Plant and other fixed Assets	723,602	560,592	2,948,925	349,887	216,520	69,282
Stocks	1,086,645	712,262	650,492	874,111	162,952	144,280
Sundry Debtors	147,299	100,194	2,395,314	109,586	369,605	100,139
Cash in hand and on deposit ..	480,886	14,795	172,572	13,527	163,945	10,191
Profit and Loss Account	184,010	16,223	10,425	44,723	9,335	
Other Assets	274,336	343,947	101,221			
Total Assets	4,935,621	2,894,076	8,034,250	1,918,140	1,481,930	463,036

CONSUMERS' SOCIETIES.

Liabilities—	£	£	£	£	£	£
Paid-up Capital	641,158	156,419	53,274	438,997	37,425	20,608
Loan Capital	(b)	31,065	8,776	102,403	..	1,782
Bank Overdrafts	90,529	10,624	10,477	33,411	4,008	3,252
Accumulated Profits	435,310	36,823	8,681	45,593	4,019	2,955
Reserve Funds	292,102	84,881	34,985	150,825	5,035	8,434
Sundry Creditors	9,833	39,420	36,559	32,105	15,096	7,981
Other Liabilities	1,459,099	369,065	1,524	3,660	471	6,164
Total Liabilities	1,459,099	369,065	154,276	806,904	66,054	51,176
Assets—						
Land and Buildings	528,704	116,655	27,928	292,171	10,002	17,961
Machinery, Plant and other fixed Assets	445,384	101,627	9,458	42,427	6,795	2,115
Stocks	253,018	51,735	49,781	292,196	27,555	15,956
Sundry Debtors	98,418	54,069	47,761	67,809	10,231	4,842
Cash in hand and on deposit ..	133,575	2,495	12,639	34,180	7,487	3,206
Profit and Loss Account	42,484	2,826	3,075	75,046	1,244	5,033
Other Assets	369,065	3,883	75,046	2,749	2,063	
Total Assets	1,459,099	369,065	154,276	806,904	66,054	51,176

SOCIETIES WHICH ARE BOTH PRODUCERS' AND CONSUMERS'.

Liabilities—	£	£	£	£	£	£
Paid-up Capital	63,411	72,431	20,219	158,787	..	..
Loan Capital	16,080	1,917	803	14,749	..	..
Bank Overdrafts	53,738	85,984	241	32,603	..	..
Accumulated Profits	53,459	7,563	1,982	11,889	..	..
Reserve Funds	78,101	48,671	20,800	108,408	..	..
Sundry Creditors	94,954	107,826	8,839	56,684	..	..
Other Liabilities	7,426	13,712	24,737	1,410	..	..
Total Liabilities	367,169	338,104	77,621	384,530	..	..
Assets—						
Land and Buildings	190,526	81,628	8,703	79,313	..	..
Machinery, Plant and Other fixed Assets	76,379	74,856	10,061	23,828	..	..
Stocks	50,321	50,929	16,495	160,930	..	..
Sundry Debtors	7,541	99,676	18,591	88,772	..	..
Cash in hand and on deposit ..	..	1,852	1,766	17,951	..	..
Profit and Loss Account .. ..	..	255	..	4,058	..	..
Other Assets	42,402	28,908	22,005	9,678	..	..
Total Assets	367,169	338,104	77,621	384,530	..	..

(a) Particulars relate to societies registered under Co-operation Act 1923-1938. (b) Not available.

E. INSURANCE.

§ 1. Insurance—General.

1. **Legislation.**—Section 51 of the Commonwealth Constitution confers the necessary powers on the Commonwealth Parliament to legislate in regard to “insurance other than State insurance; also State insurance extending beyond the limits of the State concerned”. Legislation by the Commonwealth Parliament includes the Life Assurance Companies Act 1905 limiting the amount of assurance payable on the death of children, the Marine Insurance Act 1909 defining the limits of marine insurance and regulating the terms of contracts, etc., the Insurance Act 1932–1937, requiring the lodgment of deposits by insurance companies, and the Life Insurance Act 1945, generally regulating life insurance business in Australia. These laws have limited application, and except for life insurance business, which is regulated by the recently enacted Life Insurance Act 1945, insurance business is conducted under State Laws.

2. **Insurance Act 1932–1937.**—Companies, persons or associations of persons carrying on insurance business in Australia or in any Territory of Australia are required to deposit money or approved securities with the Commonwealth Treasurer to the extent specified in the schedule.

Money deposited is invested by the Treasurer in prescribed securities according to the selection of the depositor, and all interest accruing on deposits or securities is paid to depositors. Deposits remain as security against liability to policy-holders, and are available to satisfy judgments obtained in respect of policies.

If the value of money and approved securities deposited has depreciated below the value required by the Act, the Treasurer may require the depositor to lodge additional deposits to bring the total to the prescribed value.

After this Act became law, State laws governing insurance deposits ceased to operate. Deposits held by States on 1st February, 1932, could, however, remain with the States subject to the conditions embodied in the laws of the States. Whilst deposits so remained with the State, the depositors, to the extent of the value of their deposits, were exempt from liability to make deposits under the Commonwealth Act, and the conditions of State laws continued to apply to the deposits until the Commonwealth Treasurer required their return to depositors who immediately had to make deposits with the Commonwealth Government to the prescribed extent.

The following are not regarded as insurance businesses under the Act:—

Staff superannuation schemes;

Schemes of religious organizations solely for insurance of their property; and

Friendly Society, Union and Association schemes involving superannuation or insurance benefits to employees.

This Act does not apply to State insurance within the limits of the State concerned, and under the Life Insurance Act 1945 ceased to apply to life insurance business.

The following shows particulars of deposits under the Insurance Act 1932–1937 at 30th June, 1945:—

DEPOSITS UNDER INSURANCE ACT, 30th JUNE, 1945.

Class of Insurance.	Deposited with Government of—		Total.
	Commonwealth.	States.	
	£	£	£
Life	500,510	805,494	1,306,004
Other	870,274	1,838,310	2,708,584
Total	1,370,784	2,643,804	4,014,588

The deposits comprise cash £634,645, government and municipal, etc. securities £2,848,233, fixed deposits £8,000, bank guarantees and undertakings £133,810, titles and mortgages £389,900.

3. Life Insurance Act 1945.—(i) *Objects.* In his speech on the introduction of the Bill for the Life Insurance Act 1945 the Treasurer stated that the objects of the legislation were as follows:—“(a) To replace all State legislation on the subject of life insurance and to provide a uniform basis for applying the requirements of those Acts to the whole of Australia. (b) To incorporate existing Commonwealth Acts with minor amendments. (c) To appoint an insurance commissioner who shall exercise active supervision of the activities of life insurance companies, with a view to securing the greatest possible protection for policy owners. (d) To set up adequate machinery for dealing with any company that fails to maintain a required minimum standard of solvency.

In addition, it is proposed to provide for the establishment of a Commonwealth Government Insurance Office, if and when the establishment of such an office is thought to be in the public interest”.

The Act was assented to on 16th August, 1945, and came into operation on 20th June, 1946.

(ii) *Provisions.* The main provisions of the Act are as follows:—(a) *General.* The Act provides for uniform control of life insurance business throughout Australia and in such Australian Territories as are proclaimed. The Life Assurance Companies Act 1905 is re-enacted with minor amendments, and the Insurance Act 1932–1937 ceases to apply to life insurance companies. Its main provisions are, however, continued in this Act. State Acts relating to the control of life insurance business cease to operate. State life insurance business confined to the limits of the State concerned, business in relation to benefits provided by a friendly society or trade union, any scheme or arrangement for the provision of superannuation benefits, and pensions or payments to employees or their dependents and the issue of life insurance policies to employees are excluded from the application of the Act. (b) *Administration.* An Insurance Commissioner appointed by the Governor-General, is, subject to the directions of the Treasurer, responsible for the administration of the Act. (c) *Registration of Companies.* No company can carry on life insurance business unless it has been registered by the Insurance Commissioner. The Commissioner may refuse registration to any company only with the approval of the Treasurer. (d) *Deposits.* Companies carrying on life insurance business in Australia must lodge with the Treasurer a deposit in money or approved securities. The amount of the deposit is as follows:—Companies existing prior to the commencement of the Act—£1,000 for each £5,000 of net liability to policy owners as shown by the latest valuation report, with a maximum deposit of £50,000; Foreign Companies—£50,000; New Australian Companies—£5,000, plus £5,000 per annum (£1,000 per annum in the case of a mutual company) up to a maximum of £50,000 or the amount to be deposited by companies existing prior to the commencement of the Act, whichever is the greater. Money deposited is to be invested by the Treasurer in securities selected by the company and all interest accruing on the deposits is to be paid to the company. The deposits are to be held by the Treasurer as security for the policy owners and cannot be released until adequate provision has been made for the company's liabilities to Australian policy owners. (e) *Statutory Funds.* A company carrying on life insurance business must establish a “statutory fund” for that business. All amounts received in respect of its life insurance business must be paid to and form part of the assets of that fund. The fund can only be used to meet liabilities or expenses of the life insurance business for which the fund has been established. Separate funds can be established by a company for different classes of life insurance business. (f) *Accounts, Balance-sheets and Audit.* Separate accounts must be kept for industrial and ordinary life insurance business. Statements of these accounts must be prepared in accordance with prescribed forms and delivered to the Commissioner. The accounts must be audited by a person approved by the Commissioner.

(g) *Actuarial Investigation.* An actuarial investigation into the financial condition of each Statutory Fund must be made at least once in every five years. The basis of valuation must not be less than a prescribed minimum basis. A company cannot distribute a dividend to shareholders or a new bonus to policy owners unless a surplus is revealed in the fund by the valuation. Not more than 20 per cent. of any surplus can be paid to shareholders. (h) *Documents to be furnished to the Commissioner.* Provision is made for copies of all accounts, balance-sheets, valuation reports and certain statistical information to be furnished to the Commissioner. These documents can be inspected by members of the public. (i) *Investigations by the Commissioner.* The Commissioner may make an investigation into the affairs of any company. Provision is made to compel the company to furnish any information required by the Commissioner for the purposes of an investigation. On completion of an investigation the Commissioner must advise the company of the result of his investigation and may issue any directions to the company which he thinks necessary to deal with the position disclosed. (j) *Judicial Management and Winding-up.* If investigations into a Company's business reveal a serious state of affairs, the Commissioner may apply to the High Court for an order for the company to be placed under judicial management or for an order for the winding-up of the company. If the Court orders that the company be placed under judicial management it shall appoint a judicial manager who shall manage the company in accordance with directions he receives from the Court. If the Court orders the winding-up of the company it shall appoint a liquidator, and the winding-up will be carried out in accordance with the laws of the State in which the company is incorporated. (k) *Issue of Policies.* The Commissioner may require a company to discontinue the use of any form of proposal, policy or other written matter describing its policy contracts if he considers it to be misleading. Premium rates charged must be approved by an actuary and a company cannot allow a rebate or commission in excess of the allowance for rebates or commissions taken into account by the actuary in fixing the rates of premium. An insurable interest is defined. The effect of a mis-statement by a policy owner in his proposal is limited. If the mis-statement relates to age an equitable method of adjustment is provided. In other cases of mis-statement the company cannot make any adjustment to or avoid the policy unless the statement was fraudulently untrue or relates to a material fact, and is discovered within three years of the date on which it was made. (l) *Assignment and Mortgage of Policies.* Rules are provided for the assignment or mortgage of policies. The consent of the company liable under the policy is necessary before an industrial insurance policy can be assigned. (m) *Protection of Policies.* Life insurance policies are protected against the policy-owner's creditors in the case of the bankruptcy of the policy-owner. (n) *Paid-up Policies, Surrender Value and Non-forfeiture.* A policy-owner is, on application, entitled to a paid-up policy after paying three years' premiums, or to a surrender value in cash after the policy has been in force for six years. Rules for determining the value of a paid-up policy or surrender value of a policy are laid down. In addition there are provisions that a policy will not lapse immediately if a premium is not paid. (o) *Payment of Policy Moneys.* Payments of claim moneys under policies assuring not more than £500 may be made without the production of any probate or letters of administration. (p) *Payments on Death of Children under Ten Years of age.* The amounts payable from all life insurance companies and friendly societies on the death of a child under the age of 10 years of age are limited. (q) *Children's Advancement Policies.* Unless expressly stated in the policy a child's advancement policy shall become the property of the child on attaining the vesting age. (r) *Other Provisions relating to Policies.* A company is required to keep a register of policies in each State in which it does business and to register any policy issued in such register as is agreed upon between the company and the policy-owner. A special policy may be issued in place of an original policy which has been lost or destroyed. (s) *Industrial Insurance Business.* In addition to the other provisions of the Act which relate to industrial insurance business, special provisions are included to protect industrial policy owners from misrepresentation by agents of the company. These provisions give the policy-owner the right to object to a policy within 28 days of receiving it and to claim a refund of premiums paid. Each industrial policy issued must contain a statement showing (i) whether the policy is or is not a participating policy, (ii) the rights of the policy-owner to a paid-up policy or to receive the surrender

value of his policy, and (iii) the conditions of forfeiture. (t) *Commonwealth Government Insurance Office*. Provision is made for the establishment of a Commonwealth Government Insurance Office. Policies issued by this office are to be guaranteed by the Commonwealth. (u) *Miscellaneous*. Within one year after the commencement of the Act all mutual companies shall make provisions for a system of voting by its members by post on any contested election of directors or on any alteration of the company's constitution.

§ 2. Life Assurance.

1. **General.**—Statistical returns have been collected from life assurance institutions since 1907. The results for each of the earlier years are shown in the several Official Year Books and *Finance Bulletins*. The figures in the succeeding paragraphs refer to Australian business only, except where otherwise indicated.

2. **Institutions Transacting Business.**—(i) *General*. The number of institutions transacting life assurance business in Australia during 1944 was 27, including four oversea companies. Of the twenty-three Australian institutions, six are purely mutual, including one which transacts general business in respect of which share capital is used, and fifteen are public companies. Two offices are State Government institutions.

(ii) *Ordinary and Industrial Business*. Of the total institutions, thirteen transacted both ordinary and industrial business. Ordinary and industrial business has, where possible, been kept separate.

3. **Australian Business.**—(i) *Ordinary*. The following table shows particulars of policies in existence at the end of each of the years 1939 and 1941 to 1944 inclusive :—

ORDINARY LIFE ASSURANCE : AUSTRALIAN BUSINESS—POLICIES IN EXISTENCE.

At End of Year—	Assurance and Endowment Policies.				Annuities.	
	No.	Amount.	Average per Policy.	Annual Premiums.	No.	Amount per Annum.
		£'000.	£	£'000.		£
1939 ..	1,243,378	427,291	344	(a) 13,954	3,826	384,584
1941 ..	1,339,683	463,213	346	(a) 15,213	5,167	562,364
1942 ..	1,383,540	477,862	345	15,650	(b)	(b)
1943 ..	1,432,760	499,229	348	16,497	(b)	(b)
1944 ..	1,506,264	535,324	355	17,926	(b)	(b)

(a) Annual premium income.

(b) Not available.

(ii) *Industrial*. Particulars of policies in existence at the end of each of the years 1939 and 1941 to 1944 are shown in the following table :—

INDUSTRIAL LIFE ASSURANCE : AUSTRALIAN BUSINESS—POLICIES IN EXISTENCE.

At End of Year—	Assurance and Endowment Policies.				Annuities.	
	No.	Amount.	Average per Policy.	Annual Premiums.	No.	Amount per Annum.
		£'000.	£	£'000.		£
1939 ..	2,491,742	111,862	45	(a) 6,490	2	58
1941 ..	2,780,431	126,495	45	(a) 7,305	2	58
1942 ..	2,899,139	133,805	46	7,944	(b)	(b)
1943 ..	3,025,795	142,560	47	8,423	(b)	(b)
1944 ..	3,157,977	152,841	48	8,982	(b)	(b)

(a) Annual premium income.

(b) Not available.

4. **Receipts and Expenditure.**—(i) *Ordinary Business.* The following table shows for the five years 1939 and 1941 to 1944 the aggregate Australian receipts in respect of ordinary business of all the institutions doing business in Australia. In the latest year, premiums—new, renewal and annuity—amounted to over 67 per cent., and interest, dividends and rent to nearly 33 per cent. of the Australian receipts.

ORDINARY LIFE ASSURANCE: AUSTRALIAN RECEIPTS.

Particulars.	1939.	1941.	1942.	1943.	1944.
	£	£	£	£	£
Premiums—New ..	1,613,219	1,588,124	1,218,025	1,274,935	1,759,887
Renewal ..	12,341,172	13,624,876	14,552,778	15,340,003	16,313,075
Annuity Premiums ..	183,866	386,014	215,339	216,526	248,878
Interest, dividends and rents ..	7,546,589	8,195,562	8,379,125	8,625,088	8,996,839
Other receipts ..	13,192	13,650	15,849	27,677	17,298
Total Receipts ..	21,698,938	23,808,226	24,381,116	25,484,229	27,335,977

In the following table details are given of Australian expenditure in respect of ordinary business for the five years 1939 and 1941 to 1944.

In 1944 claims accounted for 66 per cent. of the total expenditure; surrenders 6 per cent.; expenses of management 9 per cent.; commission 7 per cent.; and licence fees and taxes 4 per cent.

ORDINARY LIFE ASSURANCE: AUSTRALIAN EXPENDITURE.

Particulars.	1939.	1941.	1942.	1943.	1944.
	£	£	£	£	£
Claims ..	7,935,462	8,860,562	9,637,357	10,323,163	9,880,576
Surrenders ..	1,842,516	1,815,508	1,473,163	1,050,455	930,389
Annuities ..	219,473	257,664	250,727	247,928	246,711
Commission ..	1,007,721	936,696	924,665	874,903	1,061,555
Expenses of management ..	1,178,073	1,195,003	1,204,144	1,148,472	1,186,922
Licence fees and taxes	316,335	499,361	665,865	594,463	591,229
Shareholders' dividends	101,437	91,937	76,303	68,947	69,765
Cash bonuses paid to policy-holders ..	260,435	235,376	158,026	105,529	85,175
All other expenditure (a)	1,185,284	516,525	561,958	1,040,883	845,497
Total Expenditure	14,046,736	14,408,632	14,952,208	15,454,743	14,897,729

(a) Includes provision for taxation and other special purposes.

The excess of receipts over expenditure during the five years above was as follows:—1939, £7,651,302; 1941, £9,399,594; 1942, £9,428,908; 1943, £10,029,486; and 1944, £12,438,248. During the same years the proportions that expenditures bore to receipts were as follows:—1939, 65 per cent.; 1941, 61 per cent.; 1942, 61 per cent.; 1943, 61 per cent.; and 1944, 54 per cent.

(ii) *Industrial Business.* The aggregate Australian receipts in respect of industrial business for the years 1939 and 1941 to 1944 were as follows :—

INDUSTRIAL LIFE ASSURANCE : AUSTRALIAN RECEIPTS.

Particulars.	1939.	1941.	1942.	1943.	1944.
	£	£	£	£	£
Premiums—New and Renewal	6,490,164	7,304,844	7,758,216	8,213,501	8,715,578
Interest, dividends and rents	1,751,531	1,918,171	1,995,465	2,079,214	2,177,347
Other receipts	46,402	50,478	51,802	42,654	41,883
Total Receipts	8,288,097	9,273,493	9,805,483	10,335,369	10,934,808

Expenditure during 1944 totalled £7,256,296, of which claims amounted to over 60 per cent., commission to over 20 per cent., and expenses of management to over 11 per cent. The aggregate Australian expenditure in respect of industrial business for the five years 1939 and 1941 to 1944 was as follows :—

INDUSTRIAL LIFE ASSURANCE : AUSTRALIAN EXPENDITURE.

Particulars.	1939.	1941.	1942.	1943.	1944.
	£	£	£	£	£
Claims	3,132,459	3,707,043	3,754,776	4,028,612	4,395,405
Surrenders	498,932	400,058	265,845	151,947	152,867
Annuities	33	36	36	36	36
Commission	1,353,938	1,405,323	1,444,755	1,436,756	1,492,195
Expenses of management	717,794	767,489	788,671	808,480	800,654
Licence fees and taxes	83,259	153,381	221,653	216,347	211,285
Shareholders' dividends	56,476	57,822	45,554	44,486	35,026
All other expenditure(a)	243,786	359,311	212,435	242,270	168,828
Total Expenditure	6,086,677	6,850,463	6,733,725	6,928,934	7,256,296

(a) Includes provisions for taxation and other special purposes.

The excess of receipts over expenditure for each of the five years above was :—1939, £2,201,420; 1941, £2,423,030; 1942, £3,071,758; 1943, £3,406,435; and 1944, £3,678,512.

The proportions that expenditures bore to receipts were—1939, 73 per cent.; 1941, 74 per cent.; 1942, 69 per cent.; 1943, 67 per cent.; and 1944, 66 per cent.

5. *Liabilities and Assets.*—(i) *General.* The liabilities of the Australian institutions consist mainly of their assurance funds, but in the case of public companies there is a further liability on account of the shareholders' capital. The assets consist chiefly of government and municipal securities, mortgages, loans on policies, landed and house property, etc. Loans on personal security are granted by very few of the Australian institutions.

(ii) *Australian Liabilities and Assets.* For various reasons several institutions do not attempt the dissection of liabilities and assets between the industrial and ordinary branches, and, therefore, the figures in the following tables relate to ordinary and industrial branches combined. Assets and liabilities of the Liverpool and London and Globe Insurance Company Ltd. are excluded, as separate details of the Australian business are not available. Details of Australian liabilities are not available for years subsequent to 1941.

ORDINARY AND INDUSTRIAL LIFE ASSURANCE : AUSTRALIAN LIABILITIES.

Particulars.	1937.	1938.	1939.	1940.	1941.
	£'000.	£'000.	£'000.	£'000.	£'000.
Shareholders' capital, paid-up	1,601	1,568	1,569	1,569	1,499
Assurance and annuity funds	175,475	186,397	195,500	205,716	216,974
Other funds	4,745	4,973	5,697	6,325	6,845
Claims admitted but not paid	1,892	1,817	1,918	2,078	2,872
All other liabilities ..	1,497	1,500	1,271	1,472	1,240
Total Australian Liabilities ..	185,210	195,255	205,955	217,160	229,430

Assets for the years specified are set out in detail in the table hereunder :—

ORDINARY AND INDUSTRIAL LIFE ASSURANCE : AUSTRALIAN ASSETS.

Particulars.	1939.	1941.	1942.	1943.	1944.
	£'000.	£'000.	£'000.	£'000.	£'000.
Government and municipal securities ..	115,712	135,371	149,598	171,292	194,539
Mortgages	61,720	68,344	68,339	63,624	57,216
Loans on companies' policies	22,445	22,048	20,902	18,899	17,514
Landed and house property	12,823	12,901	(a)	(a)	(a)
Life interests and reversions	234	220	(a)	(a)	(a)
Other investments ..	6,466	5,220	(a)	(a)	(a)
Outstanding premiums	1,087	1,038	(a)	(a)	(a)
Outstanding interest, dividends and rents	1,811	1,945	(a)	(a)	(a)
Cash	2,399	2,786	(a)	(a)	(a)
Establishment and organization accounts	1,101	1,008	1,170	1,149	1,141
All other assets ..	1,718	1,806	24,741	24,534	26,374
Total Australian Assets ..	227,516	252,687	264,750	279,498	296,784

(a) Not available separately; included with other assets.

6. New Policies issued in Australia, 1944.—(i) *Ordinary Business*. During 1944 122,937 new policies were issued for £52,753,000. The average amount per policy was £429, as compared with an average of £348 per policy for all policies which were in existence at the end of 1943.

(ii) *Industrial Business*. New policies to the number of 285,628 were issued during the year for a total of £18,045,000. The average per policy was £63, as compared with the average of £47 for all industrial policies current at the end of 1943.

7. Policies Discontinued in Australia.—(i) *Ordinary Business*. The volume of business which from various causes becomes void in each year is always large. The number and amount of policies, excluding annuities, discontinued in the three years 1939, 1943 and 1944 and the reasons for discontinuance are given in the following table :—

ORDINARY LIFE ASSURANCE : POLICIES(a) DISCONTINUED IN AUSTRALIA.

Cause of Discontinuance.	1939.		1943.		1944.	
	No. of Policies.	Amount.	No. of Policies.	Amount.	No. of Policies.	Amount.
		£'000.		£'000.		£'000.
Death or maturity ..	22,529	5,612	28,754	7,749	28,215	7,442
Surrender ..	18,409	5,863	13,241	4,876	13,037	5,225
Forfeiture ..	39,382	13,414	11,631	4,613	8,693	3,624
Other ..	—128	—103	—644	379	—508	378
Total ..	80,192	24,786	52,982	17,617	49,437	16,669

(a) Excludes annuities.

Minus sign (—) denotes excess of transfers to Australian registers over transfers from Australian registers.

The number of policies discontinued because of death or maturity constituted 57 per cent. of the total, because of surrender 26 per cent., and because of forfeiture 17 per cent.

(ii) *Industrial Business*. The number of policies discontinued each year in this branch also is very large. Of the number of policies discontinued during 1944, 59 per cent. was due to death or maturity, 8 per cent. to surrender and 33 per cent. to forfeiture.

INDUSTRIAL LIFE ASSURANCE : POLICIES(a) DISCONTINUED IN AUSTRALIA.

Cause of Discontinuance.	1939.		1943.		1944.	
	No. of Policies.	Amount.	No. of Policies.	Amount.	No. of Policies.	Amount.
		£'000.		£'000.		£'000.
Death or maturity ..	73,585	2,759	86,017	3,650	90,419	3,911
Surrender ..	33,766	1,372	11,375	507	12,011	521
Forfeiture ..	154,328	7,976	53,549	3,202	51,059	3,311
Other ..	417	25	75	13	49	10
Total ..	262,096	12,132	151,016	7,372	153,538	7,753

(a) Excludes annuities.

8. *Conspectus of Australian Life Assurance Legislation*.—A conspectus of the Australian Life Assurance Legislation of the States as then existing appears in Official Year Book No. 18, pp. 1041–59.

§ 3. Fire, Marine and General Insurance.

1. *Australasian Companies.*—(i) *General.* The statistical information in this paragraph has been extracted from the *Australasian Insurance and Banking Record*. The following tables show particulars of revenue and expenditure, assets and liabilities, and investments of certain insurance companies having their head offices either in Australia, New Zealand, or Fiji.

(ii) *Revenue and Expenditure.* The most important items of revenue and expenditure are given below.

FIRE, MARINE AND GENERAL INSURANCE COMPANIES: SUMMARY OF REVENUE AND EXPENDITURE.

Particulars.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
No. of Companies	40	36	39	42	42
	£	£	£	£	£
Premiums, less reinsurances ..	9,707,920	10,379,139	11,362,787	12,235,918	12,575,956
Losses	5,417,153	5,281,894	5,907,853	5,976,403	6,282,965
Expenses, commission and taxes ..	2,994,069	3,462,048	3,956,391	4,131,429	4,499,673
Trade surplus	1,296,698	1,635,197	1,498,543	2,128,086	1,793,318
Interest, rent, etc.	1,011,208	806,630	898,944	919,485	913,524
Total surplus	2,397,906	2,441,827	2,397,487	3,047,571	2,706,842
Dividends and bonuses paid ..	708,944	850,829	790,799	803,834	798,571
Ratio to premium income of—	%	%	%	%	%
(a) Losses	55.80	50.88	51.99	48.84	49.96
(b) Expenses, etc.	30.84	33.37	34.82	33.77	35.78
(c) Trade surplus	13.36	15.75	13.19	17.39	14.26

(iii) *Liabilities and Assets.* The liabilities and assets for the period 1935-36 to 1939-40 are set out in the following table. Comparison of the results for 1939-40 (41 companies), with those for 1935-36 (40 companies) shows that paid-up capital constituted 20 per cent. of the total liabilities in 1939-40, as compared with 25 per cent. in 1935-36. Reserves constituted 46 per cent. and 45 per cent. for 1939-40 and 1935-36 respectively. Government securities and other investments constituted 67 per cent. and 66 per cent. of the total assets for the same years. Figures for years later than 1939-40 are not available.

FIRE, MARINE AND GENERAL INSURANCE COMPANIES.

Particulars.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
PAID-UP CAPITAL, RESERVES AND LIABILITIES.					
	£	£	£	£	£
Paid-up capital	6,566,758	6,674,188	6,676,188	6,823,065	6,859,065
Reserves and reinsurance funds (a)	11,773,597	12,623,437	14,347,012	14,184,021	15,843,818
Undivided profits	988,361	954,871	949,172	1,186,969	1,361,451
Losses unsettled	1,057,319	1,309,361	1,633,225	1,629,354	2,323,514
Sundry creditors, etc. ..	1,632,589	1,833,367	2,141,813	2,093,733	2,516,833
Dividends, etc., to pay ..	423,613	428,751	453,877	418,722	496,700
Life assurance funds (b) ..	3,594,919	3,860,147	4,153,530	4,448,233	4,793,471
Total Liabilities	26,037,156	27,684,122	30,354,817	30,784,097	34,194,858

(a) Including amount required as reserves against unexpired risks. transact life business.

(b) Some of the companies

FIRE, MARINE AND GENERAL INSURANCE COMPANIES—*continued.*

Particulars.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
INVESTMENTS AND OTHER ASSETS.					
	£	£	£	£	£
Loans on mortgage ..	906,802	923,781	1,190,444	953,499	934,330
Government securities, etc.	16,865,834	18,186,094	19,666,290	20,287,975	22,014,015
Landed and other property	3,066,336	3,158,269	3,434,926	3,683,085	3,803,878
Fixed deposits, etc. ..	1,973,553	2,001,642	1,933,967	1,946,707	1,927,038
Loans on life policies (a) ..	307,938	347,400	380,594	423,282	457,105
Investments ..	234,226	252,234	176,995	55,078	(b)
Cash and bills receivable ..	966,288	996,553	1,340,647	1,241,924	1,687,421
Sundry debtors and other assets. . .	1,716,179	1,817,549	2,230,954	2,192,547	2,471,071
Total Assets ..	26,037,156	27,684,122	30,354,817	30,784,097	34,194,858

(a) Some of the companies transact life business.

(b) Included with Government securities, etc.

2. **Aggregate Australian Business.**—(i) *States.* While the foregoing statements relate only to those companies whose head offices are located in Australia, New Zealand or Fiji, the following particulars, which are somewhat restricted in the range of information, are in respect of all companies operating in Australia. During 1944-45 revenue from premiums amounted to £20,110,886 and from the net interest on investments, etc., to £1,091,855, totalling £21,202,741. Expenditure on losses amounted to £9,426,943, contributions to Fire Brigades £548,345, commission and agents' charges £2,056,598, expenses of management £3,437,689, and taxation £2,273,088, a total of £17,742,663.

The following table shows for each State the aggregate premium income less reinsurance and returns, and claims paid less reinsurance, together with the proportions of losses on premiums for all classes of insurance other than life for the years 1943-44 and 1944-45.

FIRE, MARINE AND GENERAL INSURANCE : PREMIUMS AND LOSSES.

State.	Premiums, less reinsurance and returns.		Losses, less reinsurance.		Proportion of Losses on Premiums.	
	1943-44.	1944-45.	1943-44.	1944-45.	1943-44.	1944-45.
	£	£	£	£	%	%
New South Wales ..	9,205,911	8,920,089	4,053,442	4,338,780	44.03	48.64
Victoria ..	5,805,576	5,622,641	2,274,961	2,800,693	39.19	49.81
Queensland ..	2,368,881	2,483,780	1,089,773	1,179,542	46.00	47.49
South Australia ..	1,279,141	1,279,046	385,662	352,340	30.15	27.55
Western Australia ..	1,184,443	1,282,270	448,445	577,196	37.86	45.01
Tasmania ..	487,364	523,060	148,186	178,392	30.41	34.11
All States ..	20,331,316	20,110,886	8,400,469	9,426,943	41.32	46.87

(ii) *Classes of Insurance.* The following statement shows premiums and losses in respect of the principal classes of risks, with the proportions of losses on premiums for the years 1943-44 and 1944-45 :—

**FIRE, MARINE AND GENERAL INSURANCE ; PREMIUMS AND LOSSES,
PRINCIPAL CLASSES OF RISK.**

Class of Risk.	Premiums, less reinsurance and returns.		Losses, less reinsurance.		Proportion of Losses on Premiums.	
	1943-44.	1944-45.	1943-44.	1944-45.	1943-44.	1944-45.
	£	£	£	£	%	%
Fire	6,530,164	6,756,188	1,892,408	2,385,077	28.98	35.30
Workers' Compensation	5,565,118	5,805,753	3,772,612	4,020,596	67.79	69.25
Motor Vehicle .. .	2,850,601	2,870,903	1,257,318	1,336,591	44.11	46.56
Marine	2,720,135	1,811,284	630,038	804,213	23.16	44.40
All other	2,665,298	2,866,758	848,093	880,466	31.82	30.71
Total	20,331,316	20,110,886	8,400,469	9,426,943	41.32	46.87

The volume of business measured by the amounts of premium income shows that fire insurances represented about 32.1 per cent. of the total business during 1943-44 and 33.6 per cent. during 1944-45, while next in importance were workers' compensation 27.4 per cent. during 1943-44 and 28.9 per cent. during 1944-45, and motor vehicles 14.0 per cent. in 1943-44 and 14.3 per cent. in 1944-45. Marine insurance constituted 13.4 per cent. in 1943-44 and 9.0 per cent. in 1944-45.

During the three years 1932-33 to 1934-35 less than 45 per cent. of the premium income was required on the average to meet losses. Up to 1939-40 the proportion of losses on premiums did not move much from the 50 per cent. mark. During the years 1940-41 to 1943-44, however, the proportion dropped to 47.63, 43.94, 41.51 and 41.32, but in 1944-45 it increased to 46.87. From 1943-44 to 1944-45 marine insurance increased from 23.16 to 44.40. In the case of marine insurance, the proportion of losses to premiums would have been considerably higher but for the fact that losses are understated because of claims which may not be finalized for some time. Insurance effected by the Commonwealth Marine War Risks Insurance Board has been excluded from the tables above.

F. FRIENDLY SOCIETIES.

1. *General.*—Friendly societies are an important factor in the social life of the community, as probably more than one-third of the total population of Australia comes either directly or indirectly under their influence. Their total membership is over 620,000, but as certain benefits, such as medical attendance and free medicines, and in many cases funeral expenses, are granted to members' families as well as to members themselves, this figure must, even when due allowance is made for young and unmarried members, be more than doubled to arrive at an estimate of the number of persons who receive some direct benefit from these societies. Legislation has conferred certain privileges on friendly societies, but, on the other hand, it insists on their registration, and it is the duty of the Registrars in the various States, prior to registering a new society, to see that its proposed rules conform to the law, and that the scale of contribution is sufficient to provide the promised benefits. Societies are obliged to forward annual returns as to their membership and their finances to the Registrar, and reports are published in most of the States dealing with the returns received. The figures in the

following tables are for the year 1943-44 in respect of all States except Tasmania, where they relate to the calendar year 1944, and New South Wales, where they relate to the year 1938-39. In New South Wales particulars for later years have not been tabulated because of staff shortages due to the war.

2. Number of Societies, Lodges and Members.—The number of different societies and lodges, the total number of benefit members at the end of the year, and their average number during the year are shown in the following table :—

FRIENDLY SOCIETIES : SOCIETIES, LODGES AND MEMBERS.(a)

State.		Number of Registered Friendly Societies.	Number of Branches.	Benefit Members at End of Year.	Average No. of Benefit Members during the Year.
New South Wales (b)	..	33	2,402	211,170	211,653
Victoria (c)	..	92	1,458	205,003	203,823
Queensland	..	26	575	73,309	73,111
South Australia (d)	..	17	(e) 871	79,530	79,065
Western Australia (d)	..	13	313	27,891	27,453
Tasmania ..	..	20	174	24,362	(f) 24,536
Total	..	201	5,793	621,265	619,641

(a) See par. 1 for years covered. (b) Excludes twenty-one miscellaneous societies consisting of Medical Institutes, Dispensaries, and Burial Societies. (c) Excludes Dispensaries and Juvenile branches. (d) Excludes Juvenile branches. (e) Societies containing male and female branches counted as two branches. (f) Estimated.

3. Sickness and Death Returns.—Sick pay is generally granted for a number of months at full rates, then for a period at half rates, and in some societies is finally reduced to quarter rates. The following table shows the total number of members who received sick pay during the year, the number of weeks in the aggregate for which they received pay, and the average per member sick, and further the number of benefit members who died during the year, together with the proportion of deaths per thousand average members :—

FRIENDLY SOCIETIES : SICKNESS AND DEATH RETURNS.(a)

State.		Number of Members who received Sick Pay.	Total Number of Weeks Sick Pay Granted.	Average Number of Weeks per Member Sick.	Benefit Members.	
					Deaths.	Proportion of deaths per 1,000 (Average).
New South Wales	..	52,340	522,174	9.98	2,708	12.80
Victoria ..	..	49,228	479,632	9.74	2,490	12.22
Queensland	..	(b) 12,938	(b) 130,045	10.05	1,003	13.72
South Australia	..	17,663	189,978	10.76	1,059	13.39
Western Australia	..	4,975	52,339	10.52	294	10.71
Tasmania	..	4,185	44,947	10.74	353	14.39
Total	..	141,329	1,419,115	10.04	7,907	12.76

(a) See par. 1 for years covered.

(b) Females counted as half members in these totals.

4. **Revenue and Expenditure.**—(i) *Revenue.* The financial returns are not prepared in the same way in each State, but an attempt has been made in the following table to group the revenue under the main headings :—

FRIENDLY SOCIETIES : REVENUE.(a)

State.	Entrance Fees, Members' Contributions and Levies.	Interest, Dividends and Rents.	All other Revenue.	Total Revenue.
	£	£	£	£
New South Wales ..	767,621	208,651	29,769	1,006,041
Victoria ..	791,564	282,709	75,445	1,149,718
Queensland ..	233,828	91,474	(b)	325,302
South Australia ..	252,834	147,457	20,540	420,831
Western Australia ..	105,027	30,917	8,081	144,025
Tasmania ..	89,941	23,430	4,642	118,013
Total ..	2,240,815	784,638	138,477	3,163,930

(a) See par. 1 for years covered.

(b) Included in interest, dividends and rents.

(ii) *Expenditure.* The returns relating to expenditure are in greater detail than those for revenue. The figures show that the excess of revenue was £510,613 for Australia, representing about 16s. 6d. per average benefit member.

FRIENDLY SOCIETIES : EXPENDITURE.(a)

State.	Sick Pay.	Medical Attendance and Medicine.	Sums Payable at Death of Members and Members' Wives.	Adminis- tration.	All other Expendi- ture.	Total Expendi- ture.
	£	£	£	£	£	£
New South Wales ..	278,738	306,029	89,368	164,570	27,931	866,636
Victoria ..	285,939	322,743	64,158	146,827	128,373	948,040
Queensland ..	80,311	99,284	49,187	47,697	(b)	276,479
South Australia ..	94,402	103,723	47,329	48,992	33,323	327,769
Western Australia ..	27,015	44,522	14,463	21,975	13,695	121,670
Tasmania ..	26,094	34,710	24,098	19,271	8,550	112,723
Total ..	792,499	911,011	288,603	449,332	211,872	2,653,317

(a) See par. 1 for years covered.

(b) Included in administration.

It appears from the above figures that sick pay averaged about 25s. 7d. per average benefit member, but, as the returns include pay at half and quarter rates, and as the proportion of these to full rates is not stated, the average given is somewhat indefinite. Medical attendance and medicine cost about 29s. 5d. per average benefit member.

5. **Funds.**—The two foregoing tables show that the surplus of revenue over expenditure in all States amounted to £510,613 for the periods covered. Accumulations of profits arising in the sickness and funeral funds of these societies are invested pending claims by members, and at the end of the year 1944 the total funds of friendly societies amounted to £19,035,741 (£30 14s. per benefit member), invested principally on mortgage loans on members' homes, real estate, and in Government and municipal securities.

G. PROBATES.

1. Probates and Letters of Administration.—The following particulars give some idea of the number and value of estates of deceased persons in each State for the latest year for which information is available. Later particulars are not available because in some States the compilation of these statistics was discontinued for the duration of the war. Owing to differences in legislation in the various States the figures are not entirely comparable. The details for each State are shown in the table hereunder :—

PROBATES AND LETTERS OF ADMINISTRATION.

Particulars.		New South Wales, 1942-43. (a)	Victoria, 1943.	Queensland, 1939-40.	South Australia, 1940.	Western Australia, 1944.	Tasmania, 1944. (b)
Probates—							
Estates ..	No.	12,479	8,064	1,272	1,816	1,586	558
Gross Value ..	£	(c)	(d)	6,215,825	5,600,166	4,809,606	2,098,947
Net Value ..	£	27,286,958	(d)	(c)	4,669,225	4,174,119	1,858,775
Letters of Administration—							
Estates ..	No.	(d)	2,091	231	200	256	124
Gross Value ..	£	(d)	(d)	478,029	268,498	233,847	114,756
Net Value ..	£	(d)	(d)	(c)	176,604	188,665	93,988
Total—							
Estates ..	No.	12,479	10,155	1,503	2,016	1,842	682
Gross Value ..	£	(c)	25,719,202	6,693,854	5,868,664	5,043,453	2,213,703
Net Value ..	£	27,286,958	23,263,958	(c)	4,845,829	4,362,784	1,952,763

(a) Total estates of deceased persons assessed for death duty. (b) Applications dealt with.
(c) Not available. (d) Not available separately.

2. Intestate Estates administered by Curator.—The number of intestate estates administered by the Curator during the year, and the amount of unclaimed money paid into Consolidated Revenue in each State during the latest year for which information is available, are given hereunder :—

INTESTATE ESTATES ADMINISTERED BY CURATOR.(a)

Particulars.	Vic. 1940.	Q'land. 1939-40.	S. Aust. 1940.	W. Aust. 1940.	Tas., 1944.
Intestate estates administered by Curator during year—					
Number	195	671	185	454	67
Gross Value	103,346	209,984	108,404	29,408	20,355
Net Value	88,950	167,603	77,488	(b)	(b)
Unclaimed money paid into Consolidated Revenue by Curator during year ..	9,912	(c) 9,732	5,266	4,209	(b)

(a) Not included above in the table of Probates and Letters of Administration granted. Particulars for New South Wales are not available. (b) Not available. (c) Paid to Unclaimed Moneys Fund.

CHAPTER XVIII.

PUBLIC FINANCE.

A.—GENERAL.

The subject of "Public Finance" is dealt with in this Chapter under the two major divisions of Commonwealth Finance and State Finance. The close financial relations between the Commonwealth and States, particularly since the Financial Agreement has been in operation, however, demand a combination of these two divisions under the heading of Commonwealth and State Finance.

B.—COMMONWEALTH FINANCE.

§ 1. General.

1. **Financial Provisions of the Constitution.**—The main provisions of the Constitution relating to the initiation and development of the financial system of the Commonwealth are contained in Sections 81 to 105A of the Commonwealth Constitution (see pages 19-23 of this issue). Two other sections which have a most important bearing on questions of Commonwealth finance are Sections 69 and 51.

Section 69 provides for the transfer to the Commonwealth from the States of certain specified departments, and Section 51, in outlining the powers of the Commonwealth Parliament, implies the transfer or creation of other departments. Section 87 deals with the financial relations between the Commonwealth and the States. These matters have been treated in previous issues of the Official Year Book and on pages 685-691 of this issue a *résumé* is given of the constitutional obligations upon the Commonwealth regarding payments to the States.

The majority of the tables relating to Commonwealth Finance have been compiled from the annual Budget Papers as presented to Parliament by the Treasurer of the Commonwealth.

2. **Accounts of Commonwealth Government.**—The Commonwealth Government, like the State Governments, bases its accounts mainly upon three funds, the Consolidated Revenue Fund, the Trust Fund and the Loan Fund, the last-mentioned fund coming into existence in the financial year 1911-12.

§ 2. Consolidated Revenue Fund.

Division I.—Nature of Fund.

1. **Provisions of the Constitution.**—The provisions made for the formation of a Commonwealth Consolidated Revenue Fund, and the means to be adopted for operating on the fund, are contained in Sections 81 to 83 of the Constitution (see page 19 of this issue).

2. **Annual Results of Transactions.**—The following statement shows for the period 1925-26 to 1944-45 the receipts, expenditure and excess receipts or deficiency for each year, together with the accumulated result and the payments made from the excess receipts.

The receipts and expenditure on account of the Balance of Interest on States' Debts payable by the States to the Commonwealth under the Financial Agreement have been excluded.

COMMONWEALTH CONSOLIDATED REVENUE : RECEIPTS, EXPENDITURE, ETC.

Year.	Receipts.	Expenditure.	Ordinary Transactions.		Payments from Excess Receipts.	Accumulated Result.	
			Excess Receipts.	Deficiency.		Excess Receipts.	Deficiency. (a)
	£	£	£	£	£	£	£
1925-26 ..	70,203,572	70,577,204	..	373,632	62,450,000	285,897	..
1926-27 ..	75,544,382	72,908,785	2,635,597	..	(c)100,000	2,821,494	..
1927-28 ..	73,808,227	76,438,464	..	2,630,237	62,820,000	..	2,628,743
1928-29 ..	74,894,799	77,253,770	..	2,358,975	..	..	4,987,718
1929-30 ..	77,143,389	78,614,392	..	1,471,003	..	..	6,458,721
1930-31 ..	69,566,920	80,324,539	..	10,757,619	..	..	17,216,340
1931-32 ..	71,532,298	70,218,207	1,314,091	..	..	1,314,091	17,216,340
1932-33 ..	73,512,809	69,966,201	3,546,608	..	..	4,860,699	17,216,340
1933-34 ..	73,941,953	72,640,383	1,301,570	..	..	6,162,269	17,216,340
1934-35 ..	77,369,105	76,657,900	711,205	..	66,160,000	713,474	17,216,340
1935-36 ..	82,203,341	78,635,621	3,567,720	..	(e)713,474	3,567,720	17,002,866
1936-37 ..	82,807,977	81,531,419	1,276,558	..	63,567,720	1,276,558	15,935,146
1937-38 ..	89,458,154	85,963,421	3,494,733	..	61,276,558	3,494,733	15,658,588
1938-39 ..	95,064,790	94,437,481	627,309	..	63,494,733	627,309	15,658,588
1939-40 ..	111,913,784	108,985,409	2,928,375	..	(e)627,309	2,928,375	15,658,588
1940-41 ..	150,482,306	150,482,306	..	..	62,928,375	..	15,658,588
1941-42 ..	210,040,969	210,040,969	..	..	..	..	15,658,588
1942-43 ..	294,459,156	294,459,156	..	..	..	..	15,658,588
1943-44 ..	342,188,160	342,188,160	..	..	..	..	15,658,588
1944-45 ..	376,854,101	376,854,101	..	..	..	..	15,658,588

(a) Met by temporary advance from loan fund. (b) Naval construction, £1,500,000; Main Roads, £750,000; Science and Industry investigations, £100,000; and prospecting for oil and precious metals, £100,000. (c) Prospecting for oil and precious metals. (d) Naval construction and Defence reserve, £2,250,000; Science and Industry investigation, £250,000; Civil Aviation, £200,000; Purchase of radium, £100,000; and Geophysical Survey of Australia, £20,000. (e) See table following.

3. Payments from Excess Receipts.—Particulars of the excess receipts, accumulated balances and allocation of excess receipts since 1933-34 are shown in the following table :—

COMMONWEALTH CONSOLIDATED REVENUE : EXCESS RECEIPTS.

Particulars.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£	£	£
Accumulated balance ..	6,162,269	713,474	3,567,720	1,276,558	3,494,733	627,309	2,928,375
Excess receipts ..	711,205	3,567,720	1,276,558	3,494,733	627,309	2,928,375	..
Total for year ..	6,873,474	4,281,194	4,844,278	4,771,291	4,122,042	3,555,684	2,928,375
Expenditure from excess receipts—							
Grants to States ..	2,000,000	500,000	500,000	..	..	..	..
Defence equipment ..	4,160,000	..	2,000,000	..	3,494,733	627,309	2,928,375
Post Office works provision ..	..	..	..	1,000,000	..	..	..
Reduction of deficit ..	..	213,474	1,067,720	276,558	..	..	..
Total ..	6,160,000	713,474	3,567,720	1,276,558	3,494,733	627,309	2,928,375
Accumulated balance ..	713,474	3,567,720	1,276,558	3,494,733	627,309	2,928,375	..

The Consolidated Revenue Fund for the financial years 1940-41 to 1944-45 was exactly balanced as all available revenue after charging expenditure on ordinary services was used for war purposes. There were no transactions in respect of excess receipts during the years 1931-32 to 1933-34.

Division II.—Revenue.

1. General.—The following table furnishes details of the revenue from each source and the amount per head of population under each of the main headings during the years 1938-39 and 1941-42 to 1944-45 :—

COMMONWEALTH CONSOLIDATED REVENUE : SOURCES.

Source.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£	£
Taxation	74,036,899	179,435,345	257,143,520	303,666,943	337,919,567
Percentage of Total .. %	77.9	85.5	87.3	88.7	89.7
Per head of population (a) ..	£10 13 10	£25 2 10	£35 14 5	£41 15 10	£46 0 7
Business Undertakings	17,892,221	23,386,460	28,008,400	30,281,364	30,737,646
Percentage of Total .. %	18.8	11.1	9.5	8.9	8.1
Per head of population (a) ..	£2 11 8	£3 5 6	£3 17 10	£4 3 4	£4 3 9
Territories (b)	355,401	491,969	447,229	481,983	455,169
Percentage of Total .. %	0.4	0.2	0.2	0.1	0.1
Per head of population (a) ..	£0 1 0	£0 1 5	£0 1 3	£0 1 4	£0 1 2
Other Revenue—					
Interest, etc.	1,144,014	997,516	1,080,840	1,165,755	1,202,118
Coinage	127,764	867,889	2,588,787	2,027,885	1,307,037
Defence	151,208	834,800	1,489,934	(c) 202,456	(c) 126,318
Civil Aviation	5,745	185,355	401,144	770,270	1,172,958
Health	18,204	113,922	14,236	24,232	11,889
Patents, Trade Marks, etc. ..	67,914	55,937	58,075	66,660	76,997
Bankruptcy	30,770	24,877	23,500	16,795	16,077
Commerce and Marine—					
Wool Levy	74,396	85,934	81,783	84,629	75,192
Other	158,137	169,578	358,766	211,371	273,837
Net Profit on Australian Note Issue	766,730	1,658,141	2,247,702	2,628,971	2,948,472
Balance of Trust Accounts ..	..	1,600,459	218,000	127,046	102,373
Other	235,387	133,687	297,240	431,800	428,451
Total	2,780,269	6,727,195	8,860,007	7,757,870	7,741,719
Percentage of Total .. %	2.9	3.2	3.0	2.3	2.1
Per head of population (a) ..	£0 8 0	£0 18 10	£1 4 7	£1 1 4	£1 1 1
Grand Total	95,064,790	210,040,969	294,459,156	342,188,160	376,854,101
Per head of population (a) ..	£13 14 6	£29 8 7	£40 18 1	£47 1 10	£51 6 7

(a) Based on mean population of each financial year.
receipts have been credited as an offset to war expenditure.

(b) Excludes Railways.

(c) Further

2. Taxation.—(i) Total Collections. (a) Amount. Collections under each heading for the years 1938-39 and 1941-42 to 1944-45 are given below :—

COMMONWEALTH TAXATION : TOTAL COLLECTIONS.

Heading.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£	£
Customs	31,160,462	25,208,806	20,806,321	20,606,703	21,487,538
Excise	16,471,903	31,572,002	44,071,799	46,684,713	45,689,133
Sales Tax	9,308,334	26,830,085	28,846,255	27,908,691	29,671,802
Flour Tax	1,808,972	1,651,717	1,708,543	1,940,481	1,995,775
Land Tax	1,489,436	3,691,184	3,873,115	3,819,199	3,664,420
Income Tax(a)	11,882,440	77,563,026	141,027,271	183,799,169	215,534,037
Pay-roll Tax .. .. .	..	8,962,464	10,450,667	10,902,585	11,088,088
Gold Tax .. .. .	..	1,030,425	524,694	317,720	342,457
Estate Duty	1,915,352	2,845,005	2,765,000	2,761,562	3,090,200
Entertainments Tax .. .. .	..	..	2,994,426	4,704,242	5,026,821
Gift Duty .. .. .	..	79,731	144,429	221,878	329,296
Total Taxation	74,036,899	179,435,345	257,143,520	303,666,943	337,919,567
Percentage of Total Revenue %	77.9	85.5	87.3	88.7	89.7

(a) Includes War-time (Company) and Super Taxes.

(b) *Percentages of Total Collections.* The following table shows the percentages of the collections under each class of taxation of the total collections for the years 1938-39 and 1941-42 to 1944-45.

COMMONWEALTH TAXATION : PERCENTAGES OF TOTAL COLLECTIONS.

Heading.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	%	%	%	%	%
Customs	42.1	14.1	8.1	6.8	6.4
Excise	22.3	17.6	17.1	15.4	13.6
Sales Tax	12.6	14.9	11.3	9.2	8.8
Flour Tax	2.4	0.9	0.7	0.6	0.6
Land Tax	2.0	2.1	1.5	1.3	1.1
Income Tax(a)	16.0	43.2	54.9	60.5	63.4
Pay-roll Tax .. ..	..	5.0	4.1	3.6	3.3
Gold Tax .. ..	..	0.6	0.2	0.1	0.2
Estate Duty	2.6	1.6	0.8	0.9	1.0
Entertainments Tax .. ..	..	..	1.2	1.5	1.5
Gift Duty .. ..	..	..	0.1	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0

(a) Includes War-time (Company) and Super Taxes.

(ii) *Customs Revenue.* (a) *Classified.* Particulars for the years 1938-39 and 1941-42 to 1944-45 are shown in the following table :—

COMMONWEALTH CUSTOMS REVENUE : CLASSIFICATION.

Classes.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£	£
Ales, spirits and beverages	1,165,503	885,404	750,270	468,140	505,319
Tobacco and manufactures thereof	3,256,496	4,864,164	5,900,196	4,906,106	4,929,860
Sugar	7,238	18,790	193	73	6
Agricultural products and groceries	1,365,938	848,417	763,180	602,971	770,959
Textiles and attire	2,801,103	2,166,798	1,304,508	982,366	1,072,009
Metals and machinery	2,385,882	1,479,055	1,109,588	1,159,354	807,172
Oils, paints, etc.	9,927,346	7,392,294	6,148,024	7,547,540	8,477,532
Earthenware, etc.	509,980	253,593	124,612	132,595	148,037
Drugs and chemicals	309,984	224,432	223,251	143,730	177,102
Wood, wicker and cane	739,057	190,165	93,609	171,241	247,627
Jewellery and fancy goods	480,916	399,316	322,973	326,131	351,089
Leather and rubber	477,163	382,187	222,287	273,959	223,070
Paper and stationery	453,548	116,254	51,672	88,019	65,985
Vehicles	2,061,762	605,865	Dr. 86,985	31,676	27,094
Musical instruments	31,589	3,743	1,330	376	401
Miscellaneous articles	1,023,556	795,471	573,512	495,904	689,339
Primage	3,913,578	3,154,144	2,217,861	2,334,483	2,130,030
Special War Duty .. ..	..	1,226,041	898,205	788,125	686,553
Other receipts	249,823	202,673	188,035	153,914	178,354
Total Customs Revenue	31,160,462	25,208,806	20,806,321	20,606,703	21,487,538

(b) *States.* The following table shows the Customs Duties collected in each State during the years 1938-39 and 1941-42 to 1944-45.

COMMONWEALTH CUSTOMS DUTIES : COLLECTIONS IN EACH STATE.

State.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£	£
New South Wales (a)	14,070,130	11,351,335	10,377,854	9,755,631	10,752,935
Victoria	9,970,730	8,519,145	6,588,431	6,396,566	6,384,988
Queensland .. .	2,977,792	2,376,466	1,722,510	2,159,260	1,915,306
South Australia (b) ..	2,090,020	1,480,456	1,015,891	1,140,820	1,173,606
Western Australia ..	1,653,906	1,130,366	800,950	833,569	862,161
Tasmania	397,884	351,038	300,685	320,857	398,542
Total	31,160,462	25,208,806	20,806,321	20,606,703	21,487,538

(a) Includes Australian Capital Territory.

(b) Includes Northern Territory.

(iii) *Excise Revenue.* (a) *Classified.* Particulars of the amount of Excise collected under each head during the years 1938-39 and 1941-42 to 1944-45 are given hereunder :-

COMMONWEALTH EXCISE REVENUE : CLASSIFICATION.

Particulars.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£	£
Beer	7,288,579	14,302,773	19,611,954	21,588,113	21,511,748
Spirits	1,604,220	2,885,834	4,405,763	5,193,647	5,256,415
Tobacco	3,867,983	6,589,683	9,113,787	8,751,326	8,234,055
Cigars and cigarettes	2,418,723	4,038,931	7,908,209	8,113,201	7,759,980
Cigarette papers ..	530,868	805,323	842,632	873,116	797,924
Petrol	581,978	1,275,052	402,493	370,618	324,612
Matches	81,960	525,028	1,137,809	1,190,950	1,189,821
Playing cards .. .	11,432	11,315	38,355	44,028	42,475
Miscellaneous .. .	86,160	538,063	610,797	559,714	572,103
Total Excise Revenue ..	16,471,903	31,572,002	44,071,799	46,684,713	45,689,133

(b) *States.* Excise collections in each State for the years 1938-39 and 1941-42 to 1944-45 were as follows :-

COMMONWEALTH EXCISE REVENUE : COLLECTIONS IN EACH STATE.

State.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£	£
New South Wales(a) ..	6,940,301	14,484,548	21,478,848	22,080,746	21,325,832
Victoria	5,687,832	10,401,369	13,491,879	14,276,275	14,455,468
Queensland .. .	1,538,042	2,412,356	3,537,236	4,013,020	3,886,363
South Australia (b) ..	1,018,148	2,117,125	2,314,832	2,670,820	2,628,509
Western Australia ..	1,103,481	1,837,957	2,763,542	3,074,150	2,807,629
Tasmania	184,099	318,647	485,462	569,702	585,332
Total	16,471,903	31,572,002	44,071,799	46,684,713	45,689,133

(a) Includes Australian Capital Territory.

(b) Includes Northern Territory.

(iv) *Other Taxation.* (a) *General.*—Other taxes are, in general, assessed and collected by the Commissioner of Taxation. The organization comprises an office in each State assessing the returns of taxpayers whose interests are restricted to that State only, and a Central Office assessing taxpayers whose interests are in more than one State. Taxes, however, may be paid to any office, so that the sums actually received by any office do not correspond to the assessments made by that office and frequently differ by very large amounts. Consequently the actual receipts by any State office, e.g., of income tax by the Queensland office, may include tax in respect of Central Office or New South Wales assessments, and, therefore, may not be a proper measure of income tax paid on account of income derived in Queensland.

The actual receipts by the various offices are the figures of necessity used by the Treasury for accounting purposes, and may be called the "Treasury" figures. In order to give a more significant picture of the taxation in each State, figures furnished by the Commissioner of Taxation, which refer strictly to the assessments made by the State office concerned, are used in the following tables. The totals of these figures do not quite agree with the total Treasury figures shown on page 665, owing to certain technicalities of accounting. The Taxation Office figures give a fair comparison between States, e.g., in taxation paid per head, but do not give the absolute measure of taxation, because the Central Office collections, which include taxation on account of all States, have not been allocated to the States. In the absence of precise information, it may be assumed as a rough approximation that Central Office collections may be divided among States in proportion to State office collections. It is probable, however, that a somewhat larger share is derived from the more populous States, New South Wales and Victoria.

(b) *Land Tax.* Commonwealth Land Tax was first imposed on the unimproved value of land in 1910-11. The following table shows the rates of Land Tax imposed for each assessment year from 1933-34 to 1945-46 :—

LAND TAX : RATE OF TAX PER £1 OF TAXABLE VALUE.

(T = Taxable Value.)

Assessment Year.	Residents.				Absentees.(a)					
	Taxable Value £1 to £75,000.	Taxable Value over £75,000.			Taxable Value £1 to £80,000.		Taxable Value over £80,000.			
		First £75,000.	Excess over £75,000.		First £5,000.	Excess over £5,000.	First £5,000.	Next £75,000.	Excess over £80,000.	
1933-34 to 1937-38	$\frac{45}{100} \left(1 + \frac{T}{18,750} \right)$	2.25	4.05	0.45	$\frac{45}{100} \left(2 + \frac{T-5,000}{18,750} \right)$	0.45	2.7	4.5		
1938-39 to 1939-40	$\left(\frac{1}{2} + \frac{T}{37,500} \right)$	2.5	4.5	0.5	$\left(1 + \frac{T-5,000}{37,500} \right)$	0.5	3.0	5.0		
1940-41 to 1945-46b	$\left(1 + \frac{T}{18,750} \right)$	5.0	9.0	1.0	$\left(2 + \frac{T-5,000}{18,750} \right)$	1.0	6.0	10.0		

(a) Absentees are not allowed an exemption of £5,000 granted to residents. (b) In addition, if the taxable value exceeds £20,000, there is payable for 1941-42 and subsequent years a super tax equal to the lesser amount of the following:— (i) twenty per cent. of the amount of land tax; or (ii) one per cent. of the amount by which the taxable value of the land exceeds £20,000.

Under the National Security (Values for Land Tax) Regulations the revaluations of land for the purposes of the Land Tax Assessment Act 1910-1940 were postponed until after the war. Thereby the values of land, or of interests in land, as assessed for the financial year 1939-40, were adopted for the financial year 1940-41 and subsequent years for the duration of the war. An amendment to the regulations permitted the application of lower values in cases of assessments at a lower value prior to 13th March, 1942, or after that date in consequence of objections or protests lodged previously.

In addition, where a taxpayer had furnished a full and complete return of land owned at 30th June in any year prior to 1942, the lodgment of further returns was dispensed with. There is an exception in respect of changes in ownership of land.

Land Tax receipts in each State and Central Office for the years 1938-39 and 1941-42 to 1944-45 were as follows. The receipts referred to in this table differ slightly from the collections shown on p. 665 because some refunds credited before 30th June were not paid until after that date.

LAND TAX RECEIPTS.

State, etc.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£	£
Central Office	525,959	1,410,677	1,517,411	1,477,004	1,386,039
New South Wales	509,913	1,209,724	1,254,633	1,264,090	1,224,776
Victoria	290,798	706,170	748,920	718,826	699,162
Queensland	29,568	64,581	64,207	64,424	63,801
South Australia	55,280	129,719	153,423	139,742	137,338
Western Australia	63,354	122,523	112,668	117,753	116,015
Tasmania	12,879	34,623	36,308	36,687	37,666
Total	1,488,251	3,678,017	3,887,570	3,818,526	3,664,797

(c) *Estate Duty.* The Estate Duty Act 1914 and Estate Duty Assessment Act 1914-1928 imposed a duty on the estates of deceased persons the net value of which exceeded £1,000. The rate of tax, where the value of the estate for duty did not exceed £2,000, was £1 per cent. Where the value of the estate for duty exceeded £2,000 the rate was increased by one-fifth of £1 for each £1,000 or part thereof in excess of £2,000, to a maximum rate of £15 per cent. on estates over £71,000. Where the estate passed to a widow, children or grand-children, duty was payable at two-thirds of the ordinary rate.

By the Estate Duty Assessment Act 1940 the Estate Duty Assessment Act 1914-1928 was amended to allow the following statutory exemption, namely:—

(a) where the whole of the estate passes to the widow, children or grand-children of the deceased, the sum of £2,000 decreasing by £1 for every £10 by which the value exceeds £2,000 up to £10,000, and thereafter decreasing by £1 for every £2 by which the value exceeds £10,000; (b) when no part of the estate passes to the widow, children or grand-children the sum of £1,000 decreasing by £1 for every £10 by which the value exceeds £1,000 up to £6,000, and thereafter decreasing by £1 for every £8 by which the value exceeds £6,000; and (c) where part only of the estate passes to the widow, children or grand-children the statutory exemption is to be calculated proportionately under (a) and (b).

Under the Estate Duty Act 1940 the following new rates were imposed:—£1 to £10,000, 3 per cent.; £10,001 to £20,000, 3 per cent. to 6 per cent.; £20,001 to £100,000, 6 per cent. to 18 per cent.; £100,001 to £500,000, 18 per cent. to 20 per cent.; over £500,000, 20 per cent. By the Estate Duty Act 1941 these rates were amended to the following:—£1 to £10,000, 3 per cent.; £10,001 to £20,000, 3 per cent. to 6 per cent.; £20,001 to £120,000, 6 per cent. to 26 per cent.; £120,001 to £500,000, 26 per cent. to 27.9 per cent.; over £500,000 27.9 per cent.

Under the Estate Duty Assessment Act 1914-1940 provision was made for the exemption of the estates of members of the Forces who died on active service or within one year after its termination from injuries received or disease contracted on active service, provided the value of the estate did not exceed £5,000. In June, 1942, an amendment provided for an exemption of £5,000 in respect of the estates of those members of the Forces who died during the war or within three years of its termination. The exemption was restricted to estates passing to the widow, children, grand-children, parents, brothers, sisters, nephews or nieces of the deceased.

Particulars of the collections in each State and Central Office for the years 1938-39 and 1941-42 to 1944-45 are shown in the following table. These figures differ slightly from the figures on page 665, as some refunds were credited before 30th June and not paid until after that date.

ESTATE DUTY RECEIPTS.

State, etc.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£	£
Central Office	999,202	1,497,501	1,349,893	1,050,271	1,102,540
New South Wales	422,567	527,928	519,071	723,533	696,499
Victoria	294,406	489,157	567,968	696,781	819,147
Queensland	60,041	98,101	82,698	112,670	141,596
South Australia	82,789	109,419	113,599	107,335	166,020
Western Australia	34,074	45,182	48,836	54,716	135,955
Tasmania	15,960	49,855	31,343	23,186	30,616
Northern Territory .. ..	..	..	54	..	..
Total	1,909,039	2,817,143	2,713,462	2,768,492	3,091,473

Particulars of the number and value of estates with duty assessed for each of the assessment years 1938-39 and 1941-42 to 1944-45 are given in the following table :—

ESTATE DUTY ASSESSMENTS.

Particulars.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
Number of Estates ..	9,681	7,705	7,974	8,328	9,754
Gross Value Assessed £'000	65,699	66,591	60,999	62,726	74,186
Modifications £'000	12,630	13,887	11,962	11,314	13,248
Statutory Exemption £'000	..	8,943	9,502	9,976	11,654
Dutiable Value .. £'000	53,069	43,759	39,534	41,436	49,284
Duty Payable .. £	2,002,283	3,117,020	2,698,282	2,976,162	3,322,989
Average dutiable value £	5,482	5,679	4,958	4,976	5,053
Average duty per estate £	207	405	338	357	341

(d) *Gift Duty.* The Gift Duty Assessment Act 1941-1942 and the Gift Duty Act 1941 imposed a Gift Duty on all gifts made after the 29th October, 1941. A gift has been defined as any disposition of property, which is made otherwise than by will, without adequate consideration in money or money's worth.

Both the donor and donee are liable to furnish returns and pay the duty.

The following rates of duty have been fixed.

Value of all Gifts made within Eighteen Months.	Rate of Duty.
Does not exceed £500	Nil.
£501 to £10,000	3%
£10,001 to £20,000	3% to 6%
£20,001 to £120,000	6% to 26%
£120,001 to £500,000	26% to 27.9%
£500,001 and over	27.9%

The receipts from Gift Duty in each State for the years 1941-42 to 1944-45 are shown in the following table. The figures shown in the table differ from those shown on page 665 because certain refunds credited before 30th June were not paid until after that date.

GIFT DUTY.

State, etc.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£
New South Wales	23,476	43,505	75,993	135,810
Victoria	29,571	67,796	78,953	110,339
Queensland	3,379	13,004	23,036	30,974
South Australia	18,888	11,206	28,907	30,075
Western Australia	2,317	5,208	10,109	11,953
Tasmania	1,676	3,436	3,697	6,008
Northern Territory	25	..	..	118
Total	79,332	144,155	220,695	325,277

(e) *Income Tax.* Details of Commonwealth and State taxes on income are given in Section "E" of this Chapter.

(f) *Pay-roll Tax.* The Pay-roll Tax Assessment Act 1941-1942 and the Pay-roll Tax Act 1941 imposed a Pay-roll tax of 2½ per cent. on all wages in excess of £20 per week paid by an employer after 30th June, 1941. These measures formed part of the Commonwealth scheme of child endowment, the revenue from the tax being designed to provide the main part of the money required.

Pay-roll tax is collected in a similar manner to sales tax. Employers are required to register and to furnish a monthly return of all wages paid.

The following table shows the receipts from Pay-roll Tax in each State for the years 1941-42 to 1944-45. The figures shown vary slightly from the collections shown on p. 665 because some refunds which were credited before 30th June were not paid until after that date.

PAY-ROLL TAX.

State, etc.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£
New South Wales	3,848,621	4,532,422	4,709,183	4,837,455
Victoria	2,575,830	3,002,443	3,099,587	3,123,364
Queensland	1,057,442	1,265,071	1,384,810	1,365,981
South Australia	726,184	839,048	845,106	853,874
Western Australia	521,206	548,424	558,041	608,497
Tasmania	217,245	257,133	282,468	286,689
Northern Territory	8,249	4,074	3,336	3,909
Total	8,954,777	10,448,615	10,882,531	11,079,769

(g) *Gold Tax.* The Gold Tax Collection Act 1939-1940 and the Gold Tax Act 1939 impose a tax on all gold delivered to the Commonwealth Bank of Australia or to an agent of that bank, on and after 15th September, 1939, of 50 per cent. of the amount by which the price payable by the bank for each fine ounce of gold delivered exceeds £9. The amounts of tax collected during the last four years was as follows:—1941-42, £1,030,425; 1942-43, £524,694; 1943-44, £317,720 and 1944-45, £342,457.

(h) *Entertainments Tax.* The Entertainments Tax Assessment Act 1942 and Entertainments Tax Act 1942-1944 came into force on 1st October, 1942, following the agreement of the State Governments to the request of the Commonwealth to suspend their Entertainments Tax legislation for the duration of the war and one year after, thereby enabling the Commonwealth Government to re-enter this field of taxation. The Commonwealth recompenses the States by annual payments of £765,787, an amount equal to that collected by the States during the year 1941-42. The tax imposed commences with 3d. on an admission price of 1s. and increases thereafter by 2d. for every 6d. or part thereof in excess of 1s. up to 5s. Thereafter the rate increases by 3d.

for every 6d. or part thereof. Special rates, approximately 25 per cent. less than those stated above are imposed in respect of performances on the legitimate stage and similar types of entertainment.

The Entertainments Tax Assessment Act 1944 amended the Entertainments Tax Assessment Act 1942 to bring into the taxable field such places as amusement parks, etc., where the charges for admission to individual entertainments were less than 1s. The rate of tax imposed for these entertainments commences at 1d. on admissions costing 3d. and 4d. and rises to 3d. on admissions costing more than 7½d. but not more than 1s. Thereafter the rate is the same as for other entertainments.

Entertainments Tax received during the three years 1942-43 to 1944-45 is shown in the following table. The figures shown in the table differ from those shown on p. 665 because certain refunds credited before 30th June were not paid until after that date.

ENTERTAINMENTS TAX.

State, etc.				1942-43.	1943-44.	1944-45.
				£	£	£
New South Wales	..	..	..	1,236,117	1,936,659	2,111,965
Victoria	..	..	..	861,019	1,307,651	1,395,214
Queensland	..	..	..	488,214	817,342	819,756
South Australia	..	..	..	188,533	304,384	290,948
Western Australia	..	..	..	154,653	239,501	247,709
Tasmania	..	..	..	61,551	94,061	106,133
Northern Territory	..	..	..	4,374	4,732	3,744
Total	..	..	..	2,994,461	4,704,330	4,975,469

(i) *Sales Tax.* The Sales Tax was imposed in August, 1930. The operation of the tax is controlled chiefly by a system of registration of taxpayers whereby all manufacturers and wholesale merchants, who are the taxpayers under the Act in respect of goods sold in Australia, must be registered with the Department. The tax on imports subject to sales tax is collected by the Customs Department at ports of entry.

Since the inception of the tax certain exemptions have been allowed. These exemptions, which have been extended from time to time, relate mainly to goods of an essential nature or for use in primary production. Certain of these exemptions were withdrawn as from 3rd June, 1940, 22nd November, 1940 and 30th October, 1941. There have since been partial restorations of former exemptions, and from 13th September, 1945, and 10th April, 1946, additional goods, previously taxable, were exempted.

The following are the rates of sales tax imposed since its inception in August, 1930: 2½ per cent. to 10th July, 1931; 6 per cent. to 25th October, 1933; 5 per cent. to 10th September, 1936; 4 per cent. to 21st September, 1938; 5 per cent. to 8th September, 1939; 6 per cent. to 2nd May, 1940; 8½ per cent. to 21st November, 1940; 5 per cent., 10 per cent. and 15 per cent. to 29th October, 1941., 5 per cent., 10 per cent. and 20 per cent. to 30th April, 1942, and 12½ per cent. and 25 per cent. from 1st May, 1942.

The differential rates applicable as from 22nd November, 1940 related to different classes of goods specified in Schedules of the Sales Tax (Exemptions and Classifications) Act 1935-1946. The rate of 5 per cent. applied to goods, formerly exempt, which were brought into the taxable field. The rate of 20 per cent. applied to goods which may be described as being of a non-essential nature. Of the May, 1942 rates, the 12½ per cent. is the general rate, and includes some of those goods previously rated at 5 per cent. The remainder of the 5 per cent. class was again classified as exempt. From 21st July, 1943, the rate on rationed clothing was reduced to 7½ per cent.

Particulars of the net amount of sales tax payable, and the sales of taxable, non-taxable and exempt goods in each State for 1944-45 are given in the following table. The figures regarding "Tax payable" are in respect of the periods 1st July to 30th June of each year, adjusted on account of rebates of tax allowed as deductions in returns of taxpayers, while those relating to sales are in respect of the periods 1st June to 31st May.

SALES TAX AND AMOUNT OF SALES, 1944-45.

State, etc.	Gross Taxable Sales.	Non-Taxable Sales.	Sales of Exempt Goods by Registered Persons.	Net Amount of Sales on which Sales Tax was payable.	Tax Payable.		
					Taxation Department.	Customs Department.	Total.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
New South Wales ..	101,022	161,376	162,411	94,452	12,617	460	13,077
Victoria ..	79,473	139,544	132,483	72,744	9,346	248	9,594
Queensland ..	24,556	17,157	39,332	23,153	3,057	70	3,127
South Australia ..	16,327	19,970	28,960	15,175	2,020	47	2,067
Western Australia ..	9,757	8,240	18,026	8,917	1,294	47	1,341
Tasmania ..	3,881	4,910	7,876	3,659	456	12	468
Northern Territory	101	..	..	102	13	..	13
Total ..	235,117	351,197	389,088	218,202	28,503	884	29,687

Similar details for Australia as a whole for each year 1935-36 to 1944-45 are given in the following table:—

SALES TAX AND AMOUNT OF SALES.

Year.	Gross Taxable Sales.	Non-Taxable Sales.	Sales of Exempt Goods by Registered Persons.	Net Amount of Sales on which Sales Tax was payable.	Tax Payable.		
					Taxation Department.	Customs Department.	Total.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1935-36 ..	188,228	156,692	219,756	174,312	8,779	703	9,482
1936-37 ..	187,433	162,046	251,820	174,443	7,522	644	8,166
1937-38 ..	198,083	180,117	283,622	183,479	7,342	707	8,049
1938-39 ..	197,809	171,810	280,282	183,296	8,559	758	9,317
1939-40 ..	207,206	196,790	302,479	192,589	11,177	1,019	12,196
1940-41 ..	223,226	252,368	306,734	209,004	18,562	1,256	19,818
1941-42 ..	255,178	337,744	337,869	239,152	25,438	1,473	26,911
1942-43 ..	208,261	358,367	386,255	192,544	27,976	980	28,956
1943-44 ..	217,873	361,189	378,392	204,168	27,243	649	27,892
1944-45 ..	235,117	351,197	389,088	218,202	28,803	884	29,687

In the foregoing tables exempt sales relate to goods exempted from sales tax under the Sales Tax (Exemptions and Classifications) Act 1935-1946, while non-taxable sales relate to goods on which tax is not payable at the time of sale. In this latter case the sale has been made to a registered taxpayer who has quoted his certificate. These sales, however, become taxable before passing into consumption, unless used for a purpose exempted under the Act.

The figures given in the foregoing tables do not represent the total sales of all commodities, as vendors trading in exempt goods only are not required to be registered and consequently the volume of their sales is not included in the statistics above.

(j) *Flour Tax.* A Flour Tax of £4 5s. per ton operated from 4th December, 1933 to 31st May, 1934, and of £2 12s. 6d. per ton from 7th January, 1935 to 24th February, 1936. On 5th December, 1938, the Flour Tax was again imposed in a more or less permanent form. The new legislation provided for a tax on flour (not exceeding £7 10s. per ton) varying as the price of wheat varies from 5s. 2d. a bushel at Williamstown. The commencing rate was £5 15s. per ton, since when there have been 21 variations, the highest rate being that reached in August, 1939, £6 2s. 9d., and the lowest in December, 1939, £1 12s. 3d. The present rate of £2 8s. 10d. has remained constant since October 1940, chiefly as a result of war conditions and the operation of National Security Regulations relating to the acquisition of the wheat crop by the Commonwealth. Provision is made in another Act for the imposition of a special tax on wheat when world parity rises above 5s. 2d. at Williamstown.

Net receipts after allowing for refunds and tax outstanding are shown for the years 1938-39 and 1941-42 to 1944-45 in the following table. The figures vary slightly from the collections shown on p. 665 because some refunds were credited before 30th June, but not paid until after that date.

FLOUR TAX.

State.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£	£
New South Wales ..	704,152	638,898	639,458	723,556	803,791
Victoria ..	531,577	457,679	462,026	553,093	545,935
Queensland ..	237,854	220,079	245,764	310,784	307,596
South Australia ..	141,048	135,855	131,259	134,316	129,878
Western Australia ..	123,856	105,584	112,506	111,269	107,439
Tasmania ..	55,346	43,446	41,666	43,186	55,757
Total ..	1,793,833	1,601,541	1,632,679	1,876,204	1,950,396

(k) *Wool Levy.* The Wool Tax Act 1936 and Wool Tax Assessment Act 1936 provided for a levy on all wool grown in Australia and shorn on or after 1st July, 1936. The levy is collected through wool-brokers and dealers who furnish quarterly returns on which the levy is assessed. On wool, not previously taxed in the hands of a broker or dealer, the levy is payable prior to export. The rates fixed by the Wool Tax Act 1936 were: 6d. per bale; 3d. per fadge or butt; and 1d. per bag. By the Wool Tax Act 1945 these rates were increased from 1st June, 1945 to 2s. per bale; 1s. per fadge or butt; and 4d. per bag. Proceeds are devoted to publicity and research in connexion with the wool industry. The amounts levied during the years 1938-39 and 1941-42 to 1944-45 were as follows:—

WOOL LEVY.

State.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£	£
New South Wales ..	28,889	35,401	31,350	34,398	29,197
Victoria ..	15,493	18,965	18,143	16,620	16,519
Queensland ..	14,451	15,875	15,365	15,178	13,409
South Australia ..	8,243	8,267	8,587	9,168	8,063
Western Australia ..	5,795	6,007	7,011	7,955	6,695
Tasmania ..	1,525	1,419	1,327	1,310	1,309
Total ..	74,396	85,934	81,783	84,629	75,192

3. *Business Undertakings.*—(i) *Postal Revenue.* Particulars of this branch of revenue for each of the financial years from 1938-39 and 1941-42 to 1944-45 are contained in the following table:—

COMMONWEALTH POSTAL REVENUE.

Particulars.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£	£
Private boxes and bags ..	74,235	74,831	76,783	81,646	86,670
Commission on money orders and postal notes ..	288,580	293,443	306,150	301,455	308,226
Telegraphs ..	1,372,300	1,828,815	2,859,564	3,147,752	3,186,495
Telephones ..	8,039,580	9,687,262	10,691,417	11,719,922	12,270,788
Postage ..	6,635,977	8,561,742	9,109,801	10,060,170	10,714,085
Radio ..	516,178	634,777	637,946	649,095	660,986
Miscellaneous ..	439,451	558,494	709,247	719,636	644,561
Total ..	17,366,311	21,639,364	24,390,908	26,679,676	27,871,811

Further particulars of Postal Revenue are given in Chapter V. "Transport and Communication".

(ii) *Railway Revenue.* The Commonwealth Government is responsible for four railways—the Trans-Australian, the Central Australia, the North Australia and the Australian Capital Territory. The following table shows the amounts paid to the credit of the Consolidated Revenue Fund on account of each of these railways for the years 1938-39 and 1941-42 to 1944-45:—

COMMONWEALTH RAILWAY REVENUE.

Railway.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£	£
Trans-Australian	330,643	604,228	1,226,364	1,027,401	989,194
Central Australia	137,521	742,144	1,584,537	1,736,783	1,045,423
North Australia	50,471	305,448	791,555	822,582	819,884
Australian Capital Territory	7,275	5,276	15,036	14,922	11,334
Total	525,910	1,747,096	3,617,492	3,601,688	2,865,835

Further particulars are given in Chapter V. "Transport and Communication" (part B, Railways).

4. *Other Sources of Revenue.*—Of other sources of revenue, amounting in 1944-45 to £7,741,719, the following are noteworthy: Interest, £1,202,118; Coinage, £1,307,037; Civil Aviation, £1,172,958 and Net Profit on Australian Note Issue, £2,948,472.

Division III.—Expenditure.

1. *Nature of Commonwealth Expenditure.*—The disbursements by the Commonwealth Government of the revenue collected by it fell naturally, under the "book-keeping" system, into three classes, namely:—

(a) Expenditure on transferred services; (b) Expenditure on new services; and (c) Payments of surplus revenue to the States.

Of these three, only the first two were actual expenditure, the last being merely a transfer, the actual expenditure being incurred by the States. In accordance with the provisions of the Constitution, the expenditure on transferred services was, under the "book-keeping" system, debited to the several States in respect of which such expenditure was incurred, while the expenditure on new services was distributed *per capita*. Surplus Commonwealth revenue was paid to the States monthly. Until the end of the year 1903-4, new works, etc. for transferred departments were treated as transferred expenditure, and were charged to the States on whose behalf the expenditure had been incurred. In subsequent years all such expenditure was regarded as expenditure on new services, and distributed amongst the States *per capita*. Under the arrangement which superseded the "book-keeping" system, a specific subsidy of 25s. per head of population was made annually by the Commonwealth to the States, and there was no further debiting of expenditure to the several States. The States Grants Act 1927 provided for the abolition of the *per capita* payments as from 30th June, 1927. From 1st July, 1928 the temporary provisions of the agreement between the Commonwealth and the several States under the Financial Agreement Act 1928 were operative, and on 1st July, 1929 the Commonwealth Government took over the debts of the States under this agreement which was ratified by all Governments concerned. For further particulars of Commonwealth payments to States and of the Financial Agreement see pages 685-691 and section D.—Commonwealth and State Finance, paragraph 4 of this issue.

2. *Details of Expenditure from Consolidated Revenue.*—(i) *General.* The following table gives details of the expenditure from Consolidated Revenue during the years 1938-39 and 1941-42 to 1944-45.

* For an exposition of the "book-keeping system" see Official Year Book No. 6, p. 780.

COMMONWEALTH EXPENDITURE FROM CONSOLIDATED REVENUE.

Departments, etc.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
War and Repatriation (1914-19)	£	£	£	£	£
Services (a)	19,256,812	18,618,302	18,721,499	19,603,959	19,288,874
Defence and War (1939-45) Services (b)	(c) 8,061,359	109,233,539	159,478,192	167,843,327	194,573,719
Total Cost of Departments—					
Governor-General	32,765	30,705	29,383	32,243	49,121
Parliament	444,873	473,163	487,319	599,208	603,491
Prime Minister	41,355,842	1,304,628	1,359,518	1,603,344	1,615,941
External Affairs	70,168	199,642	215,490	251,164	244,048
Treasury	2,257,628	2,948,933	3,563,826	3,779,096	3,935,396
Attorney-General	281,497	319,171	351,452	386,749	433,646
Interior	(e) 1,275,392	873,303	840,918	807,106	855,575
Works and Housing	(f) 56,142	56,142	48,780	42,438	48,910
Civil Aviation	328,150	337,165	349,671	359,591	438,531
Trade and Customs	1,064,124	956,081	872,509	815,501	873,457
Health	338,155	299,856	385,560	379,326	392,602
Commerce and Agriculture	994,095	975,924	1,021,955	1,033,661	1,042,723
Social Services—					
Administrative	324,734	281,742	393,490	412,139	443,260
Invalid and Old-age Pensions	15,991,782	19,257,025	22,292,835	21,699,100	21,701,127
Widows' Pensions	..	..	2,358,998	2,800,702	2,965,446
Maternity Allowances	436,614	358,538	281,052	(g) 28,162	(g)
Child Endowment	..	11,302,863	11,659,626	12,256,976	12,036,248
National Welfare Fund—					
Maternity Allowances	..	..	..	2,258,838	2,542,801
Funeral Benefits	..	..	..	105,336	163,992
Balance to Fund	..	..	..	25,525,398	27,293,207
Supply and Shipping	214,832	240,716	246,405	275,173	272,865
External Territories	(h)	45,389	24,577	19,607	35,374
Immigration	(f)	25,402	27,192	31,197	32,420
Business Undertakings—					
Postmaster-General	15,028,233	17,527,865	19,938,502	22,481,577	23,993,463
Railways	1,351,041	1,995,577	2,726,187	3,068,686	2,794,796
Total, Business Undertakings	16,379,274	19,523,442	22,664,689	25,550,263	26,788,259
Territories	1,099,960	1,279,646	1,017,650	1,010,624	1,042,520
New Works	6,565,268	3,305,344	3,960,954	4,677,278	5,705,351
Payments to or for States—					
Interest on States' Debts (j)	7,584,912	7,584,912	7,584,912	7,584,912	7,584,912
Sinking Fund on States' Debts	1,477,976	1,579,797	1,587,798	1,577,672	1,682,869
Special Grants	2,020,000	2,300,000	2,175,000	2,470,000	2,846,000
Federal Aid Roads and Works	4,266,556	2,128,344	1,603,342	1,486,891	2,200,902
Income Tax Reimbursement	..	..	26,431,542	32,047,342	32,666,316
Entertainments Tax Reimbursement	..	..	574,341	765,787	765,787
Other Grants	300,000	138,100	140,138	127,569	122,035
Total to or for States	15,649,444	13,731,153	40,097,073	46,060,173	47,868,821
Relief to Primary Producers	2,014,713	4,063,155	1,708,543	1,940,481	3,566,376
Grand Total (l)	94,437,481	210,040,969	294,459,156	342,188,160	376,854,101
Per Head of Population	£ s. d. 13 12 8	£ s. d. 29 8 7	£ s. d. 40 18 1	£ s. d. 47 1 10	£ s. d. 51 6 7

(a) For details see § 5, pp. 701-702.

(b) For details see § 6, pp. 703-705.

(c) Departments of Navy, Army, Air and Supply and Shipping.

(d) Includes External Territories.

(e) Includes Works and Housing, and Immigration.

(f) Included with Interior.

(g) See National Welfare Fund.

(h) Included with Prime Minister.

(i) Excludes Defence and War (1939-45) Services.

(j) Excludes balance of interest payable on States' Debts (recoverable from States).

(k) In addition the following amounts were provided under War Services expenditure—1942-43, £3,084,817; 1943-44, £12,321,820 and 1944-45, £14,280,284.

(l) Excludes amounts expended from excess receipts of previous years (see page 664).

Particulars for each department include interest, sinking fund, superannuation charges, etc., but do not include the expenditure on new works which is given in (iii), page 685 nor that on Defence and War (1939-45) Services which is given in § 6, pages 703-705. Details of expenditure of each department are given in paragraph (ii) below.

(ii) *Total Cost of Departments.* (a) *Introductory.* Under the heading "Total Cost of Departments" are included (i) particulars of expenditure on the estimates of departments in respect of salaries and general expenses and (ii) particulars of expenditure

from special appropriations in respect of salaries of the Governor-General, Ministers, Judges, etc., Government contributions under the Superannuation Act, and interest and sinking fund charges, etc. allocated to departments.

(b) *Governor-General.* Section 30 of the Constitution enacts that, until the Commonwealth Parliament otherwise provides, there shall be payable out of the Consolidated Revenue Fund for the salary of the Governor-General an annual sum of ten thousand pounds, and a proviso is made that the salary of the Governor-General shall not be altered during his continuance in office. The expenditure in connexion with the Governor-General and establishment for the five years 1938-39 and 1941-42 to 1944-45 was as follows :—

EXPENDITURE : GOVERNOR-GENERAL AND ESTABLISHMENT.

Details.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£	£
Salary	10,000	10,000	10,000	10,000	10,000
Government Houses, maintenance, etc.	12,305	12,264	10,874	13,895	18,584
Governor-General's office (a) ..	5,381	3,910	4,023	4,030	16,125
Interest and Sinking Fund ..	5,079	4,531	4,486	4,318	4,412
Total	32,765	30,705	29,383	32,243	49,121

(a) Represents official services outside the Governor-General's personal interests, and carried out mainly at the instance of the Government.

(c) *Parliament.* Under this head have been grouped all the items of expenditure connected with the Commonwealth parliamentary government of Australia for the five years 1938-39 and 1941-42 to 1944-45. Although the administration of the Electoral Act and the conduct of elections come within the functions of the Department of the Interior, the expenditure in connexion therewith is fundamentally incurred on account of the parliamentary government system and for that reason is included herein.

EXPENDITURE : COMMONWEALTH PARLIAMENT.

Details.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£	£
Salaries of Ministers	19,325	22,750	22,750	22,750	22,750
Allowances to Senators ..	36,171	36,199	36,200	36,063	36,137
Allowances to Members of House of Representatives	74,900	75,399	75,314	75,164	75,400
Officers, staff, contingencies, etc.	71,120	86,238	90,642	86,107	87,349
Rent, repairs, maintenance, etc.	14,679	20,202	17,886	21,978	31,353
Printing	22,000	23,608	19,178	17,651	24,120
Travelling expenses of Members	41,429	44,056	40,136	58,266	67,000
Electoral Office	85,143	90,268	97,722	103,064	103,396
Election expenses	3,232	..	..	113,162	102,770
Administration of Electoral Act	20,029	26,140	36,466	18,555	9,223
Interest and Sinking Fund ..	41,444	36,923	36,538	35,142	35,900
Miscellaneous	15,401	11,380	8,487	11,306	8,093
Total	444,873	473,163	487,319	599,208	603,491

In Section 66 of the Constitution provision is made for the payment from Consolidated Revenue of an annual sum for the salaries of Ministers, and Section 48 specifies the amount of the allowance to each Senator and each Member of the House of Representatives. These details, together with subsequent increases, will be found on pp. 14 and 17 of this volume.

(d) *Prime Minister's Department.* This department was created during the financial year 1911-12. External Territories were administered by this department until June, 1941, when the Department of External Territories was created. Particulars of expenditure relating to the administration of External Territories for the years 1941-42 to 1944-45 are shown under the heading of that department. The expenditure for the years 1938-39 and 1941-42 to 1944-45 is shown in the following table:—

EXPENDITURE : PRIME MINISTER'S DEPARTMENT.

Details.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
Salaries, contingencies and miscellaneous	£ 160,842	£ 134,722	£ 96,263	£ 212,225	£ 100,481
Audit Office	38,434	35,026	46,676	40,451	41,716
Rent, repairs, etc.	8,120	8,626	9,378	12,699	13,545
Public Service Board's Office	50,688	48,898	51,057	51,746	51,899
High Commissioner's Office	81,369	91,214	98,913	103,566	104,855
Mail Service, Pacific Islands	49,077	(a)	(a)	(a)	(a)
Scientific and Industrial Research—					
Council	197,764	395,036	516,541	668,662	776,596
Contributions, Grants, etc.	75,379	105,280	67,837	65,914	69,912
Pensions and Superannuation	10,473	10,536	11,332	12,208	12,887
North Australia Survey	10,000	..	..	..	..
National Oil Pty. Ltd. Agreement	60,000	..	..	..	..
Interest and Sinking Fund	613,696	475,290	461,521	435,873	444,050
Total	1,355,842	1,304,628	1,359,518	1,603,344	1,615,941

(a) Included with Department of External Territories.

(e) *Department of External Affairs.* The Department of External Affairs was separated from the Prime Minister's Department in 1935-36. Its functions include, *inter alia*, communications with British and foreign diplomatic missions and consulates on political matters, foreign affairs, inter-Imperial and Dominion political relations, treaties and international agreements, and United Nations Organization matters, etc. In addition to the High Commissioner for Australia in the United Kingdom (see table above) representatives of Australia are now installed in the United States of America, China, Holland, Russia, France, Latin America, Canada, India and New Zealand. Expenditure of the department for the years 1938-39 and 1941-42 to 1944-45 are given in the following table:—

EXPENDITURE : EXTERNAL AFFAIRS.

Details.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£	£
Salaries and General—					
Administrative	20,129	36,490	40,809	34,680	30,555
Legation, United States of America .. ..	..	60,997	63,033	71,072	68,755
Legation, Japan .. ..	..	15,763	5,783	..	..
Legation, China .. ..	..	25,302	33,079	33,049	15,049
Legation, Union of Soviet Socialist Republics .. ..	..	..	15,533	27,689	30,013
Legation, France .. ..	..	..	..	..	1,427
Legation, Latin America .. ..	..	..	..	..	56
High Commissioner, Canada .. ..	..	13,892	15,099	17,969	20,356
High Commissioner, New Zealand .. ..	..	..	..	6,250	7,939
High Commissioner, India .. ..	..	..	..	8,403	21,291
Contribution, League of Nations Secretariat and International Labour Office	43,329	34,018	39,001	41,852	39,999
Miscellaneous	6,710	13,180	3,153	10,200	8,608
Total	70,168	199,642	215,490	251,164	244,048

(f) *Department of the Treasury.* The sub-departments under the control of the Commonwealth Treasurer are the Treasury, the Supply and Tender Board, Taxation Office, Superannuation Fund Management Board, and the Commonwealth Bureau of Census and Statistics. The Government Printing Office is also a sub-department of the Treasury, but its expenditure is charged to Parliament and the Departments concerned. The Pensions and Maternity Allowance Office was transferred from the Treasury to the Department of Social Services which was created during 1940-41. Details of the expenditure of the Treasury for the years 1938-39 and 1941-42 to 1944-45 are given in the following table:—

EXPENDITURE : DEPARTMENT OF THE TREASURY.

Details.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£	£
Treasury(a)	56,528	85,876	81,103	91,520	89,736
Taxation Office	618,537	1,005,964	1,715,485	1,858,211	1,994,069
Superannuation Board	8,623	7,576	9,256	11,480	12,111
Census and Statistics	60,939	64,095	70,410	54,873	65,268
Census	4,113	573	7,406	..	..
Rent, repairs, etc.	23,088	32,469	70,413	75,349	74,116
Interest and Sinking Fund	911,004	983,364	988,870	970,000	980,845
Exchange	514,240	517,939	495,637	499,291	500,811
Loan Conversion expenses.. ..	1,588	24,398	1,144	132	2,102
Gold Tax collection .. ..	..	121,777	4,748	..	152
Miscellaneous	58,968	104,902	119,354	218,150	216,186
Total	2,257,628	2,948,933	3,563,826	3,779,096	3,935,396

(a) Includes Supply and Tender Board.

(g) *Attorney-General's Department.* Details of expenditure for years 1938-39 and 1941-42 to 1944-45 are furnished below:—

EXPENDITURE : ATTORNEY-GENERAL'S DEPARTMENT.

Details.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£	£
Attorney-General's Office	19,699	31,443	40,435	43,554	42,887
Crown Solicitor's Office	27,642	41,523	60,022	84,238	109,792
Salaries of Justices of High Court	18,500	16,452	15,500	15,500	17,433
High Court expenses	15,615	13,309	13,920	14,851	16,740
Court of Conciliation and Arbitration.. ..	24,040	30,267	40,198	43,091	50,334
Public Service Arbitrator's Office	5,919	3,670	3,611	3,573	4,586
Rent, repairs, etc.	15,131	19,770	21,224	24,371	25,779
Patents, Trade Marks, etc.	71,126	52,345	48,809	48,171	54,016
Investigation Branch	16,219	26,663	28,895	33,182	35,804
Bankruptcy	44,551	43,080	43,991	41,937	39,223
Reporting Branch	13,922	21,224	25,378	24,097	24,886
Miscellaneous	9,127	10,425	9,469	10,184	12,166
Total	281,497	319,171	351,452	386,749	433,646

(h) *Department of the Interior.* With the formation of the new departments of Works in February, 1945, and Immigration in July, 1945, the administration of Commonwealth Public Works and Immigration was transferred to the new departments. The costs relating to these activities have been excluded from the following table for the years 1941-42 to 1944-45 and are shown under the new departments. The Commonwealth Railways and the Northern and Australian Capital Territories, which are administered by the Department of the Interior, are for convenience included respectively under

Railways (s) and Territories (t) below. Expenditure in connexion with the Electoral Office, which is administered by the Department of the Interior, is included under Parliament, in (c) above.

Particulars of the expenditure for the years 1938-39 and 1941-42 to 1944-45 on services under the control of this Department are as follows:—

EXPENDITURE : DEPARTMENT OF THE INTERIOR.(a)

Details.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
Salaries, Contingencies and Miscellaneous—	£	£	£	£	£
Administrative ..	380,550	134,632	132,155	122,706	148,300
Meteorological Bureau ..	80,107	(b)	(b)	(b)	(b)
Solar Observatory ..	6,816	7,224	6,171	9,177	15,090
Forestry Branch ..	10,436	12,086	9,628	9,670	11,803
Rent, repairs and maintenance. ..	17,618	35,773	18,300	18,300	19,400
Pensions, Superannuation and Retiring Allowances	20,567	15,514	15,777	16,924	18,203
Interest	690,061	587,923	574,728	541,962	549,994
Sinking Fund	69,237	80,151	84,159	88,367	92,785
Total	1,275,392	873,303	840,918	807,106	855,575

(a) Excludes Territories, Railways and Electoral Office.
Air and Civil Aviation.

(b) Provided under Departments of

(i) *Department of Works and Housing.* In February, 1945, the Department of Works was formed to take over Commonwealth works from the Department of the Interior. The functions of this department were expanded in July, 1945, to include Housing which had previously been controlled by the Department of Post-war Reconstruction. Details of expenditure of the Works section of the Department of the Interior for the years 1941-42 to 1944-45 are shown in the following table:—

EXPENDITURE : DEPARTMENT OF WORKS AND HOUSING.

Details.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£
Administrative—Salaries and general..	48,654	41,602	34,953	42,030
Pensions, Superannuation and Retiring Allowances	5,558	5,478	5,785	5,180
Repairs and maintenance of building..	1,930	1,700	1,700	1,700
Total	56,142	48,780	42,438	48,910

(j) *Civil Aviation.* Particulars of expenditure on Civil Aviation for the years 1938-39 and 1941-42 to 1944-45 are as follows:—

EXPENDITURE : DEPARTMENT OF CIVIL AVIATION.

Details.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£	£
Salaries and general—administrative	89,946	160,183	203,382	235,054	313,222
Development and maintenance of Civil Aviation	162,232	73,434	..	..	1,095
Meteorological Services .. ..	..	56,975	61,000	61,000	61,000
Empire Air Services	55,919	22,130	61,828	37,722	24,285
Australia-New Zealand Air Service .. ..	..	..	..	3,009	12,457
Rent, repairs and maintenance	8,428	14,088	13,215	12,953	16,452
Interest and Sinking Fund	11,625	10,355	10,246	9,853	10,020
Total	328,150	337,165	349,671	359,591	438,531

(k) *Department of Trade and Customs.* Under this head have been included the expenditure of all the sub-departments under the control of the Minister for Trade and Customs, in addition to the amounts payable as bounties and the expenses in connexion therewith. Particulars for the five years 1938-39 and 1941-42 to 1944-45 are given in the following table:—

EXPENDITURE : DEPARTMENT OF TRADE AND CUSTOMS.

Details.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£	£
Central Office	70,298	60,922	49,326	53,149	61,769
Tariff Board	13,252	10,571	11,250	9,864	10,854
Film censorship	4,466	4,972	4,956	4,948	4,778
Customs—States	621,425	600,569	591,390	624,346	670,549
Audit (proportion)	11,786	10,501	18,000	16,691	17,237
Pensions and Superannuation	45,063	46,368	46,149	49,930	49,457
Rent, repairs, etc.	7,373	9,227	7,376	8,508	7,885
Bounties and Subsidies	225,636	85,113	97,908	6,098	13,813
Interest and Sinking Fund	34,321	30,683	30,390	29,271	29,917
Remissions of duty on materials for Commonwealth Government ship construction	26,702	47,368	7,638	5,244	1,387
Other remissions of duty	2,066	48,462	8,014	7,452	5,811
Miscellaneous	1,736	1,325	112	..	..
Total	1,064,124	956,081	872,509	815,501	873,457

(l) *Department of Health.* This department came into existence in the financial year 1921-22. Details of expenditure for the five years 1938-39 and 1941-42 to 1944-45 are as follows:—

EXPENDITURE : DEPARTMENT OF HEALTH.

Details.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£	£
Administrative	135,506	143,565	139,918	150,554	157,227
Pharmaceutical Services .. ..	..	..	..	..	5,356
Interest and Sinking Fund	23,661	21,682	21,500	20,901	21,293
Rent and repairs	14,102	13,705	10,235	12,840	12,870
Pensions and Superannuation	2,870	3,398	3,850	4,211	4,204
Subsidy, Cattle Tick Control	69,450	61,783	61,783	53,325	53,325
Medical Research	30,000	20,000	20,000	20,000	20,000
Nutrition — Publicity and surveys	2,969	..	3,500	9,621	9,893
X-ray and Radium Laboratory	3,492	3,858	3,960	4,429	4,501
National Health Campaign	5,000	2,000	2,600	20,400	20,400
Council for National Fitness	371	18,633	72,500	72,500	72,500
Maternal and Infant Hygiene	1,000	900	1,250	1,250	1,250
Aerial Medical Services sub- sidy	5,000	7,500	7,500	7,500	7,500
Miscellaneous (a)	44,734	2,832 (b)	36,964	1,795	2,283
Total	338,155	299,856	385,560	379,326	392,602

(a) Includes reserve of essential drugs and medical equipment, £39,430.

(b) Includes Swine Fever—grant towards compensation paid by States, £35,213.

(m) *Department of Commerce and Agriculture.* The Department of Commerce was created in April, 1932, by the amalgamation of the Departments of Markets and of Transport. Commonwealth Railways, formerly administered by the Minister for Transport,

were transferred to the control of the Minister for the Interior on the amalgamation in 1932. Particulars of the expenditure of the Department of Commerce and Agriculture (as it is now called) for the five years 1938-39 and 1941-42 to 1944-45 are given below :—

EXPENDITURE : DEPARTMENT OF COMMERCE AND AGRICULTURE.

Details.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£	£
Administrative	58,218	63,230	78,478	75,121	57,689
Administration of Commerce (Trade Descriptions) Act	174,876	210,697	219,420	250,112	278,245
Australian National Publicity Association	20,000	4,000	..	..	..
Oversea trade publicity ..	47,016	..	..	..	..
Commercial intelligence service abroad	47,248	55,385	34,689	33,852	41,300
Wool publicity and research	73,816	84,965	81,813	85,335	74,858
Fruit bounties	10,462	41	..	..	..
Rent, repairs, maintenance, etc.	13,081	13,420	10,543	6,808	2,741
Pensions and Retiring Allowances	12,959	13,358	13,656	14,255	10,877
Interest	198,599	235,656	255,912	246,486	240,906
Sinking Fund	245,404	293,722	308,289	318,880	333,809
All Other	(a) 92,416	1,450	(b) 19,155	2,812	2,298
Total	994,095	975,924	1,021,955	1,033,661	1,042,723

(a) Includes representation at New York World Fair, £39,780, and San Francisco Exhibition £21,335. (b) Includes Tobacco Investigations and Instruction, £15,000.

During 1942-43 activities relating to Supply and Shipping were transferred from the Department of Commerce and a new department was created. For purposes of comparison the expenditure on functions allocated to the new Department during the years 1938-39 and 1941-42 to 1944-45 have been deducted from the expenditure of the Department of Commerce and are shown under the Department of Supply and Shipping.

(2) *Department of Social Services.* This Department, constituted during 1940-41, includes the Invalid and Old-age Pension and Maternity Allowance Office, formerly administered by the Treasury Department. It also deals with Child Endowment, Widows' Pensions, and Unemployment and Sickness Benefits. Particulars of expenditure during the five years 1938-39 and 1941-42 to 1944-45 were as follows :—

EXPENDITURE : DEPARTMENT OF SOCIAL SERVICES.

Details.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£	£
Administrative .. ..	..	9,440	9,726	10,116	11,069
Child Endowment Section ..	..	129,183	140,710	134,400	140,834
Invalid and Old-age Pension and Maternity Allowance Office	138,634	126,217	188,517	210,796	211,434
Widows' Pensions Section ..	..	..	33,517	27,384	27,016
Unemployment and Sickness Benefits Section .. ..	..	..	..	..	10,548
Miscellaneous	186,100	16,902	21,020	29,443	42,359
Departmental Expenditure	324,734	281,742	393,490	412,139	443,260
Invalid and Old-age Pensions	15,991,782	19,257,025	22,292,835	21,699,100	21,701,127
Widows' Pensions .. ..	..	..	2,358,998	2,800,702	2,965,446
Maternity Allowances	436,614	358,538	281,052	28,162	..
Child Endowment .. ..	..	11,302,863	11,659,626	12,256,976	12,036,248
National Welfare Fund— Maternity Allowances .. ..	..	..	..	2,258,838	2,542,801
Funeral Benefits .. ..	..	..	..	105,336	163,992
Balance to Fund .. ..	..	..	..	25,525,398	27,293,207
Total	16,753,130	31,200,168	36,986,001	65,086,651	67,146,081

(o) *Department of Supply and Shipping.* Formed in 1942-43 for the purposes of controlling war-time supplies and shipping, the Department took over the Marine Branch of the Department of Commerce. Expenditure on this branch is shown below. The balance of the expenditure of the department is shown under Defence and War Services (1939-45).

EXPENDITURE : DEPARTMENT OF SUPPLY AND SHIPPING.

Details.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£	£
Marine Branch—Salaries and general	208,129	236,825	240,185	264,702	265,737
Overhaul and repair of Departmental vessels ..	5,305	3,314	5,041	6,266	..
Colonial Light Duties ..	1,398	577	1,179	830	842
Rent, repair and maintenance of buildings ..	..	..	..	3,375	6,286
Total	214,832	240,716	246,405	275,173	272,865

(p) *Department of External Territories.* This Department was set up in June, 1941 to administer the Commonwealth External Territories of Papua, New Guinea, Norfolk Island, and Nauru. Prior to June, 1941, this administration was carried out by the Prime Minister's Department. Expenditure of the department for the years 1941-42 to 1944-45 is shown hereunder. Expenditure prior to 1941-42 is included with the Prime Minister's Department :—

EXPENDITURE : DEPARTMENT OF EXTERNAL TERRITORIES.

Details.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£
Administration—Salaries and general ..	6,287	14,264	14,666	23,374
Shipping and mail services to the Pacific Islands	39,102	10,313	4,929	12,000
Superannuation .. ..	..	..	12	..
Total	45,389	24,577	19,607	35,374

(q) *Department of Immigration.* This Department was formed in July, 1945 to administer matters relating to Immigration, Naturalization, etc. Prior to the formation of this Department, this work was carried out by a section of the Department of the Interior. Expenditure of this section during the last four years was :—1941-42, £25,402 ; 1942-43, £27,192 ; 1943-44, £31,197 ; and 1944-45, £32,420.

(r) *Postmaster-General's Department.* Details of the expenditure of this department for the five years 1938-39 and 1941-42 to 1944-45 are given in the following table :—

EXPENDITURE : POSTMASTER-GENERAL'S DEPARTMENT.

Details.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£	£
Salaries, stores and materials, mail engineering services, etc.	11,563,510	13,603,018	15,790,003	18,471,039	19,920,531
Public Works Staff—salaries, etc.	60,000	60,000	60,900	60,000	60,000
Audit (proportion)	11,660	13,100	13,000	13,000	13,000
Pensions and Retiring Allowances	75,113	57,194	51,728	46,646	38,291
Superannuation	316,747	349,222	355,249	379,080	379,522
Rents, repairs, etc.	114,183	118,182	119,175	149,395	156,035
A.R.P. Works at Postal Establishments . . . . .	..	..	231,785	25,708	51,048
Interest	1,398,690	1,421,282	1,375,793	1,330,567	1,295,668
Sinking Fund	1,128,933	1,384,942	1,455,839	1,528,295	1,604,792
Exchange	359,397	488,242	485,030	477,847	474,576
Loans' Redemption and Conversion Expenses . . . . .	..	32,683	..	..	..
Total	15,028,233	17,527,865	19,938,502	22,481,577	23,993,463

Further details of expenditure on account of the Postmaster-General's Department appear in Chapter V. "Transport and Communication".

(s) *Railways.* In April, 1932, the administration of Commonwealth Railways was placed under the Department of the Interior. The expenditure on railways for the five years 1938-39 and 1941-42 to 1944-45 is shown below :—

EXPENDITURE : COMMONWEALTH RAILWAYS.

Details.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£	£
Working Expenses—					
Trans-Australian	493,463	647,685	917,863	871,730	882,464
North Australia	55,186	239,153	317,065	479,190	517,273
Central Australia	214,374	458,345	814,360	1,028,059	784,221
Australian Capital Territory	7,365	8,804	12,010	13,754	12,438
Interest	392,194	387,665	371,303	368,675	359,907
Sinking Fund	75,230	87,075	91,341	95,735	100,474
Exchange	62,674	88,328	84,492	83,951	83,894
Contribution to South Australia (Port Augusta—Port Pirie Railway)	20,000	20,000	20,000	20,000	20,000
Superannuation	13,467	15,289	14,397	16,210	17,426
Miscellaneous	17,088	43,233	83,356	91,382	16,699
Total	1,351,041	1,995,577	2,726,187	3,068,686	2,794,796

Additional details of the financial operations of the Commonwealth Railways are given in Chapter V. "Transport and Communication".

(i) *Territories.* The following table shows the expenditure on account of territorial services for the last five years. The internal territories are administered by the Department of the Interior, and the Department of External Territories controls the external territories. The expenditure has been grouped in one table for convenience. Information in greater detail will be found in the *Finance Bulletin* No. 36, issued by this Bureau.

EXPENDITURE : TERRITORIES.

Details.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£	£
Internal—					
Australian Capital (a) ..	637,228	698,072	676,909	698,290	736,898
Northern (a) ..	402,899	520,021	328,842	301,434	294,800
External—					
Papua ..	48,830	38,839	4,682	4,692	4,609
New Guinea ..	5,532	17,048	2,144	2,135	2,139
Norfolk Island ..	5,471	5,666	5,073	4,073	4,074
Total ..	1,099,960	1,279,646	1,017,650	1,010,624	1,042,520

(a) Excludes Railways.

(iii) *New Works.* The expenditure on additions, new works, etc., during the five years 1938-39 and 1941-42 to 1944-45 was as follows:—1938-39, £6,565,268 (excluding £3,494,733 provided from excess receipts for Defence equipment); 1941-42, £3,305,344; 1942-43, £3,960,954; 1943-44, £4,677,278; and 1944-45, £5,705,351. Particulars for the last four years exclude expenditure in connexion with Defence and War (1939-45) Services, which was provided for by Loan and Trust Funds.

(iv) *Defence, War and Repatriation Services.* Full details concerning the expenditure from Consolidated Revenue upon War and Repatriation (1914-19) Services and Defence and War (1939-45) Services will be found in §§ 5 and 6, pages 707-705.

Division IV.—Payments to or for the States.

1. *Introductory.*—In some previous issues of the Official Year Book particulars were given of the obligations imposed on the Commonwealth by the Constitution Act with reference to the payments to be made to the States, and the following statement briefly outlines the principal financial provisions of the Constitution in regard to the distribution of revenues received by the Commonwealth.

2. *Uniform Customs Duties.*—Prior to Federation, State revenues were largely derived from Customs and Excise duties and as the Commonwealth Constitution (Sections 86 and 90) transferred exclusively to the Commonwealth this source of revenue it was essential that the Constitution should provide adequate compensation for this loss to the States. Section 88 directed that uniform duties of customs must be imposed within two years after the establishment of the Commonwealth. This section was complied with on 8th October, 1901, by the introduction of the first Customs Tariff Bill.

3. *Special Western Australian Tariff.*—Section 95 of the Constitution authorized the Western Australian Government, for a period of five years after the imposition of the uniform customs duties, to impose customs duties on goods passing into that State and not originally imported from beyond the limits of the Commonwealth, such duties to be collected by the Commonwealth.

Provision was also contained in this section for the regulation of the rates of duty.

4. **Distribution of Commonwealth Revenue.**—Broadly, the requirements of the Commonwealth Constitution in regard to the financial relationship between the Commonwealth and the States may be divided into three phases covering definite periods.

(a) 1901 to 1910. This period was covered by Section 87 (known as the "Braddon Clause") which provided that:—

"During a period of ten years after the establishment of the Commonwealth and thereafter until the Parliament otherwise provides, of the net revenue of the Commonwealth from duties of customs and of excise not more than one-fourth shall be applied annually by the Commonwealth towards its expenditure.

The balance shall, in accordance with this Constitution, be paid to the several States, or applied towards the payment of interest on the debts of the several States taken over by the Commonwealth".

The scheme outlined in the Constitution for determining the amount to be paid to the several States is contained in Sections 89 and 93, the former of which relates to the period prior to the imposition of uniform duties of customs (as provided in Section 88), the latter to the first five years after the imposition of such duties and thereafter until Parliament otherwise provides. The principle involved was that of crediting each State with the Commonwealth revenue collected in respect of that State, and of debiting it with the expenditure incurred on its behalf in connexion with transferred departments, as well as its share on a *per capita* basis of the "new" expenditure of the Commonwealth. On this account the method of allocation provided by the Constitution has become very generally known as the "book-keeping system". As the imposition of uniform duties of customs and excise throughout the Commonwealth took place on 9th October, 1901, the five years provided for in Section 93 expired on 8th October, 1906, and consequently the "book-keeping system" could then be changed at any time by the Commonwealth Parliament.

Section 93 provided that the duties of customs chargeable on goods imported into and duties of excise paid on goods produced or manufactured in one State and consumed in another should be credited to the consuming State. The balance in favour of any State was paid monthly by the Commonwealth.

The Surplus Revenue Act 1908 continued the "book-keeping system" but provided that any excess receipts over expenditure should be distributed monthly to each State in proportion to their respective populations. This act more clearly defined "transferred" and "new" expenditure.

(b) 1911 to 1927 (*Surplus Revenue Acts*). The provisions of Section 87 of the Constitution were terminated by the passing of the Surplus Revenue Act 1910 which provided for the following scheme of payments to operate from 1st July, 1910:—

- (i) the Commonwealth to pay by monthly instalments or apply to the payment of interest on debts of the States taken over by the Commonwealth an annual sum amounting to twenty-five shillings per head of the number of people of the State;
- (ii) in addition to the payments above, all surplus revenue (if any) to be paid to the States in proportion to the number of people; and
- (iii) a special payment to be made to Western Australia in monthly instalments of an annual sum of £250,000 in the first year, thereafter progressively diminishing by £10,000 each year. One half of the payments so made to be debited to all of the States (including Western Australia) on a population basis and the amount so debited to be deducted from the amount otherwise payable to each State.

After 1920 and until 1927 the provisions of the several Surplus Revenue Acts continued to govern the payments by the Commonwealth to the States.

(c) 1928 to date (*Financial Agreement Act*). An Amendment to the Constitution embodied in Section 105A gave effect to the powers conferred on the Commonwealth in Section 105. This amendment included provisions for:—

- (i) taking over the debts of the several States by the Commonwealth;

- (ii) the payment by the Commonwealth of a fixed annual sum in respect of the interest on such debts and for certain sinking fund contributions ;
- (iii) the indemnification of the Commonwealth by the States in respect of debts taken over from the States ;
- (iv) the borrowing of money by the States or by the Commonwealth or by the Commonwealth for the States ; and
- (v) certain other matters connected with the management, consolidation, renewal, conversion and redemption of such debts.

5. **Special Grants.**—The Constitution provides in Section 96 for the granting of special financial assistance to the States. Reference has already been made to the special grant to Western Australia in the Surplus Revenue Act 1910. This State has continued to receive financial assistance each year since 1910–11. In 1912, a grant under similar conditions was made to Tasmania ; the amount payable in the first year, 1912–13, was £95,000, which was to be progressively reduced by £10,000 in each successive year. The Tasmania Grant Act 1913 provided for an addition to this grant, bringing the amount payable to £85,000 per annum to the year 1924–22 after which annual grants of varying magnitude were made.

South Australia received £360,000 in 1929–30 and further grants in each successive year.

Other direct grants to the States from consolidated revenue include contributions towards the payment of interest and sinking fund on loans expended by Local Government authorities on public works. Grants which have been made from loan fund are indicated in the statement of loan expenditure on page 692.

From the accumulated excess receipts since 1931–32, special assistance to the States was provided as follows :—

State.				1934–35.	1935–36.	1936–37.
				£	£	£
New South Wales	..	..	..	786,000	205,000	197,000
Victoria	..	..	..	550,000	140,000	137,000
Queensland	..	..	..	286,000	75,000	72,000
South Australia	..	..	..	176,000	45,000	44,000
Western Australia	..	..	..	133,000	35,000	33,000
Tasmania	..	..	..	69,000	..	17,000
Total	..	..	..	2,000,000	500,000	500,000

6. **Commonwealth Grants Commission.**—In 1933 the Commonwealth Government appointed the Commonwealth Grants Commission of three members to inquire into and report upon claims made by any State for a grant of financial assistance and any matters relevant thereto.

Applications were received from South Australia, Western Australia and Tasmania during each year from 1933 and the recommendations of the Commission in respect of the years 1938–39 and 1942–43 to 1945–46 were as follows :—

				Grant Recommended.				
State.				1938–39.	1942–43.	1943–44.	1944–45.	1945–46.
				£	£	£	£	£
South Australia	..	..	..	1,040,000	800,000	900,000	1,200,000	1,400,000
Western Australia	..	..	..	570,000	800,000	850,000	904,000	950,000
Tasmania	..	..	..	410,000	575,000	720,000	742,000	646,000
Total	..	..	..	2,020,000	2,175,000	2,470,000	2,846,000	2,996,000

During the year 1942-43 the Tasmanian Government lodged an application for additional financial assistance on the grounds that the original grant of £575,000 recommended was insufficient for the needs of the State. The claim was heard by the Commission and an advance payment of £200,000 was recommended. This, however, was not acceptable to the Tasmanian Government, which preferred to raise the money required through the Loan Council.

7. *States Grants (Income and Entertainments Tax Reimbursement) Acts.*—(i) *States Grants (Income Tax Reimbursement) Act.* As compensation to the States for vacating the income tax field to the Commonwealth Government, the State Grants (Income Tax Reimbursement) Act 1942 provided for the payment to the States of the following amounts, less amounts equal to any arrears of State Income Tax collected during each year that the Act remained in operation :—

					£
New South Wales	..	..	..	..	15,356,000
Victoria	..	..	..	..	6,517,000
Queensland	..	..	..	..	5,821,000
South Australia	..	..	..	..	2,361,000
Western Australia	..	..	..	..	2,546,000
Tasmania	..	..	..	..	888,000
Total	..	..	..	..	33,489,000

Amounts equal to the arrears collected were to be paid, with interest at a rate not less than 3 per cent., immediately prior to the expiration of the Act.

In section six of the Act provision was made for the Treasurer of any State to inform the Commonwealth Grants Commission if he considered that the payments made under the Act were insufficient to meet his revenue requirements. The Commission, after inquiry into the matter, were to advise the Treasurer as to the justice of granting additional assistance. The Treasurer of Tasmania availed himself of this provision to apply for an increase of the Income Tax Reimbursement Grant for the years 1942-43, 1943-44 and 1944-45, but in each case the Commonwealth Grants Commission did not consider that an additional grant was just. Following an application in 1944-45 by the Treasurer of South Australia, an additional grant of £553,172 was recommended by the Commonwealth Grants Commission.

The States Grants (Income Tax Reimbursement) Act 1942 came into operation on 1st July, 1942, and was to continue until the end of the first financial year commencing after the cessation of the 1939-45 War.

The States Grants (Tax Reimbursement) Act 1946 revised the basis of determining the reimbursement grants for 1946-47 and subsequent years. This Act provides for the following reimbursement grants to be paid to the States.

(a) 1946-47 and 1947-48—					£
New South Wales	..	..	..	..	16,477,000
Victoria	..	..	..	..	8,860,000
Queensland	..	..	..	..	6,601,000
South Australia	..	..	..	..	3,458,000
Western Australia	..	..	..	..	3,384,000
Tasmania	..	..	..	..	1,220,000
Total	..	..	..	..	40,000,000

(b) 1948-49 and subsequent years.—An amount is to be determined by increasing the aggregate grants paid in 1947-48 (£40,000,000) by the same proportion as the aggregate population of the six States at the beginning of the financial year increases over the aggregate population of the six States at 1st July, 1947. This amount is to be further increased by a percentage equal to half the percentage increase in average

wages per person employed in the financial year preceding the year in which the reimbursement grants are to be paid over the average wages per person employed in 1946-47. The amount so determined will be the aggregate of the reimbursement grants and is to be distributed to the States in the following proportions:—

(i) 1948-49 to 1956-57—The weighted mean of—

(a) the proportion indicated by the "adjusted" population* for each State, and

(b) the proportions indicated by the distribution of the aggregate reimbursement grant in 1946-47 and 1947-48,

giving the latter a weight of 9/10 in 1948-49, 8/10 in 1949-50 and thus decreasing each year to 1/10 in 1956-57.

(ii) 1957-58 and subsequent years—The proportion indicated by the "adjusted" population for each State.

It is provided that, if the application of the above formula for distribution of the aggregate grants causes the amount of the reimbursement grant for any State to fall below the grant for 1946-47, the grant payable will be the same as that for 1946-47 and the balance of the aggregate grant is to be distributed between the remaining States in the above proportions.

An amount equal to arrears of State income taxes collected by the States in any year is to be deducted from the reimbursement grants for that year. The aggregate amount so deducted less any refunds of State income taxes made by the Commonwealth is to be repaid in the event of uniform taxation ceasing to operate. This amount bore interest at 3 per cent. up to 30th June, 1946, but thereafter, under the new arrangement, will bear no interest.

The provisions relating to additional grants in the State Grants (Income Tax Reimbursement) Act 1942 have been repealed.

The payment of the tax reimbursement grant in any year to any State will be subject to the condition that that State has not imposed a tax on incomes in that year.

The reimbursement grants provided in the State Grants (Tax Reimbursement) Act 1946 are intended to replace the grants previously made on account of both Income and Entertainments taxes.

(ii) *States Grants (Entertainments Tax Reimbursement) Act.* The following amounts were paid to the States by the Commonwealth for that portion of the year 1942-43 following the withdrawal of the States from the entertainments tax field:—

					£
New South Wales	..	..	..	..	120,623
Victoria	..	..	..	..	279,944
South Australia	..	..	..	..	72,782
Western Australia	..	..	..	..	73,640
Tasmania	..	..	..	..	27,352
Total	..	..	..	..	574,341

Payments for each of the years 1943-44, 1944-45 and 1945-46, while the Act operated, were as follows:—

					£
New South Wales	..	..	..	..	160,830
Victoria	..	..	..	..	373,259
South Australia	..	..	..	..	97,043
Western Australia	..	..	..	..	98,186
Tasmania	..	..	..	..	36,469
Total	..	..	..	..	765,787

* In the "adjusted" population allowances are made for differences in the proportion of school children in the population and the density of the population in each State.

No compensation was payable in respect of Queensland because a State entertainment tax was not levied in that State.

The Act ceased to operate after 30th June, 1946, when the reimbursement grant on account of Entertainments Tax was included with the Income Tax Reimbursement Grant. Although the Commonwealth will continue to collect an entertainments tax, payment of the latter grant is not conditional on any State not imposing an entertainments tax.

8. **Grants for Road Construction.**—(i) *Main Roads Development Acts.* Grants amounting in the aggregate to £1,750,000 were made to the States in 1922–23, 1924–25 and 1925–26 for the purpose of reconditioning certain main roads. £1,500,000 of this amount was on the basis of the expenditure by the States of an equivalent amount.

(ii) *Federal Aid Roads.* The Federal Aid Roads Act 1926 made provision for the construction and re-construction of roads in the several States out of moneys provided by the Commonwealth and States respectively. The original arrangement provided for a grant by the Commonwealth of £2,000,000 per annum for ten years from 1st July, 1926. The allocation to the States was based on three-fifths according to population and two-fifths according to area.

Expenditure was made in the proportion of 15s. by the States to £1 by the Commonwealth. The original agreement was varied in certain respects, the most important of which operated from 1st July, 1931, when in lieu of the £2,000,000 per annum, the Commonwealth agreed to contribute an amount equivalent to 2½d. per gallon customs duty, and 1½d. per gallon excise duty on petrol entered for home consumption during each year, and the States were not required to make any contribution as formerly agreed upon.

The 1926 agreement, which was originally intended to remain in operation for ten years, was continued until 30th June, 1937, when a new agreement was entered into. The latter provided for the continuation of the Federal Aid Roads Agreement for a further period of ten years from 1st July, 1937, increased the amount payable to the States to 3d. a gallon customs duty and 2d. a gallon excise (except benzol, on which the excise is only 1½d.) on petroleum and shale products, and stipulated that the proceeds of the extra ½d. per gallon should be expended on the construction, reconstruction, maintenance or repair of roads, or other works connected with transport. The allocation of the amount payable was in the proportion of 5 per cent. to Tasmania and the remaining 95 per cent. to the other States on the basis of three-fifths according to the population at 30th June, 1936, and two-fifths according to area. At the request of the Commonwealth Government the States will, up to a limit of one-twelfth of this additional amount, attend to the maintenance or repair of roads of approach to or adjoining Commonwealth properties. A further variation was the reduction from 3 to 2½ per cent. of the sinking fund contribution of the States on loan moneys provided by them between 1926 and 1931.

9. **Amounts Paid.**—(i) 1901 to 1945. The following table shows particulars of the amounts paid to each of the States since Federation, divided into three periods, with separate details for Special and Roads Grants. Special Commonwealth grants for the relief of primary producers are not included in this table. Details of these grants will be found in Chapter XX. "Agricultural Production."

**PAYMENTS(a) BY THE COMMONWEALTH TO OR FOR THE STATES TO
30th JUNE, 1945.**

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1900-01 to 1909-10 (b) ..	27,606	19,815	8,895	6,148	8,727	2,602	73,793
1910-11 to 1926-27 (c) ..	41,634	31,341	15,184	9,925	6,899	4,367	109,350
1927-28 to 1944-45 (d) ..	62,193	43,110	22,996	15,596	11,154	5,479	160,528
Special Grants (e) ..	..	..	..	17,195	13,524	9,543	40,262
Grants—							
Income Tax Reimbursement (f) ..	40,535	17,900	16,456	6,729	6,996	2,529	91,145
Entertainments Tax Reimbursement (g) ..	442	1,026	..	267	270	101	2,106
Non-recurring Grants from Excess Receipts, 1934-35 to 1936-37 ..	1,188	827	433	265	201	86	3,000
Special Assistance (h) ..	929	908	375	379	320	128	3,039
Grants for Road Construction, 1922-23 to 1944-45 (i) ..	13,564	8,906	9,501	5,644	9,630	2,507	49,752
Total ..	188,091	123,833	73,840	62,148	57,721	27,342	532,975

(a) Includes non-recurring grants from excess receipts, but excludes amounts provided for relief of wheat-growers and other primary producers and other payments for medical research, etc. (b) Under Section 87 of the Commonwealth Constitution. (c) Under the several Surplus Revenue Acts.

(d) Under Financial Agreement Act 1928-1944. (e) Under various State Grants Acts. (f) Under States Grants (Income Tax Reimbursement) Act 1942. (g) Under States Grants (Entertainments Tax Reimbursement) Act 1942. (h) Unemployment Relief, Metalliferous Mining, Forestry, Local Public Works, etc. (i) Under Federal Aid Roads and Main Roads Development Acts.

(ii) 1944-45. For the year ended 30th June, 1945, the payments made to or for each State are given below:—

PAYMENTS BY THE COMMONWEALTH TO OR FOR THE STATES, 1944-45.(a)

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
	£	£	£	£	£	£	£
Interest on States' Debts ..	2,917,411	2,127,159	1,096,235	703,816	473,432	266,859	7,584,912
Sinking Fund on States' Debts (b) ..	670,825	316,750	232,087	220,910	192,447	49,850	1,682,869
Special Grants ..	..	..	..	1,200,000	904,000	742,000	2,846,000
Income Tax Reimbursement ..	14,829,990	6,422,764	5,733,737	2,311,791	2,488,238	879,796	32,666,316
Entertainments Tax Reimbursement ..	160,830	373,259	..	97,043	98,186	36,469	765,787
Federal Aid Roads and Works (c) ..	618,454	385,158	420,372	244,300	422,573	110,045	2,200,902
Local Public Works ..	39,400	27,400	14,450	8,700	6,650	3,400	100,000
Contributions—							
Interest on Loans for Drought Relief ..	11,069	6,300	108	..	4,558	..	22,035
Port Augusta—Port Pirie Railway Agreement ..	..	..	..	20,000	..	..	20,000
Total ..	19,247,070	9,658,790	7,196,980	1,806,560	1,500,084	2,088,410	47,888,821

(a) Excludes relief to primary producers and other payments for medical research, etc. (b) Paid to National Debt Sinking Fund. (c) Paid to Trust Fund.

§ 3. Trust Funds.

The Trust Fund balances at 30th June, 1945 amounted to £137,098,701, as compared with £100,277,257 at 30th June, 1944.

§ 4. Commonwealth Loan Funds and Public Debt.

1. **General.**—Although it was not until 1915 that the Commonwealth Government came into the loan market as a borrower, there had previously existed a Commonwealth Public Debt which included several items, such as the balance of the debt taken over from South Australia and the amount owing to the States for transferred properties. In view of the large expansion of the Public Debt, and its present importance in Commonwealth public finance, the different items are treated *seriatim* in the following paragraphs.

2. **Loans taken over from South Australia.**—The first portions of the debt were contracted at the beginning of 1911, when the Commonwealth assumed responsibility for the payment of interest on transferred properties (further dealt with in par. 4 below)

and for the administration and the liabilities of the Northern Territory and the Port Augusta-Oodnadatta Railway. At 30th June, 1911 the debt on account of the former was £3,057,836, and on account of the latter, £2,274,486—a total of £5,932,322. The remaining indebtedness was redeemed during 1940-41.

3. **Loan Fund Expenditure.**—Up to the year 1911 the Commonwealth Government had met its public works expenditure out of revenue. In that year, however, in view of the prospective heavy cost of the Trans-Australian Railway and the Australian Capital Territory, a Loan Fund similar to those of the States was established. The initiation of this fund was greatly assisted by the fact that the Treasury at that time held a large quantity of gold, principally on behalf of the Australian Notes Account. Up to 30th June, 1914, the money required for loan expenditure was obtained mainly from this source, and 3½ per cent. inscribed stock of an equivalent value was created. Since then the money required for the Loan Fund has been obtained mainly by the issue of Treasury Bills and other securities in London, New York and Australia. Annual expenditure on works, etc., up to 1919-20 did not exceed £3,000,000. From 1920-21 it rose to almost £9,500,000 in 1926-27 and declined to about £2,000,000 in 1930-31. For the years 1931-32 to 1938-39 expenditure fluctuated between £520,000 and £4,550,000. During the last six years, owing to the inclusion of expenditure on Defence and War (1939-45) Services, the total expenditure from loan has risen considerably. Expenditure from loan in respect of the 1914-19 War was made from the War Loan Fund and is not included in the following table. See § 5, pages 701-2 for particulars.

COMMONWEALTH EXPENDITURE FROM LOAN FUND.

Particulars.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.	Total to 30th June, 1945.
	£	£	£	£	£	£
Defence and War (1939-45) Services— General Services and Works ..	..	210,876,328	402,852,114	377,156,935	266,040,485	1,387,321,138
Additions, New Works, Buildings, etc.—						
Defence Buildings, Works, Sites ..	1,912,284	..	..	..	..	8,693,948
Civil Aviation, Buildings and Works ..	..	..	..	..	Cr. 1,205	213,086
Ships, Yards and Docks ..	Cr. 305,351	..	..	..	..	7,863,028
Lighthouses, Works and Services ..	Cr. 1,000	Cr. 1,000	Cr. 1,000	Cr. 1,000	..	634,490
River Murray Waters Act ..	..	..	..	..	..	2,105,625
Postmaster-General's Department—						
Telegraph and Telephone Con- struction ..	..	939,918	..	..	..	36,057,558
Buildings Works, Sites, etc. ..	Cr. 1,290	244,940	Cr. 160	Cr. 45	Cr. 126	4,079,412
Subscription to Capital of Amalga- mated Wireless Ltd. ..	..	..	..	..	..	300,000
Radio Stations and Equipment ..	..	15,082	..	..	..	104,538
Serum and Health Laboratories ..	..	..	..	..	..	80,149
Other Health Buildings and Services ..	..	Cr. 1,100	..	..	..	21,864
Repatriation Buildings, etc. ..	..	..	..	..	..	47,026
War Service Homes (a) ..	..	..	..	..	..	7,329,523
Railways ..	Cr. 339	Cr. 17,656	Cr. 34,746	Cr. 9,698	Cr. 40,809	13,774,741
Territories(b) ..	Cr. 6,768	Cr. 7,406	Cr. 5,111	Cr. 6,262	Cr. 7,812	8,804,003
Immigration ..	..	..	..	..	..	1,680,834
Other ..	..	..	..	..	..	1,381,094
Assistance to States—						
Unemployment Relief ..	Cr. 3,822	Cr. 5,773	Cr. 6,043(c)	223,459	..	2,667,020
Mining ..	..	..	..	..	..	283,750
Forestry ..	..	..	..	..	..	322,000
Farmers' Debt Adjustment ..	2,000,000	165,000	235,000	..	..	7,967,000
Roads ..	..	..	..	..	..	249,686
Wire and Wire Netting ..	..	..	..	..	..	608,849
Drought Relief ..	..	597,000	Cr. 22,795	..	..	1,844,205
Wheat Bounty ..	..	..	..	..	..	3,429,571
Total Additions, New Works, Buildings, etc. ..	3,593,714	1,929,005	165,145	206,454	Cr. 49,952	110,543,000
GRAND TOTAL ..	3,593,714	212,805,333	403,017,259	377,363,389	265,990,533	1,497,864,138

(a) In addition, £13,045,408 was expended from War Loan Fund prior to 1923-24. (b) Includes Administration and other Public Buildings, Australian Capital Territory. (c) Adjustment of credits in previous years.

4. **Properties Transferred from States.**—At the time of Federation, when the Commonwealth took over the control of several departments previously administered by the States, a large amount of property was handed over to the Commonwealth Government, which paid interest to the States at the rate of $3\frac{1}{2}$ per cent. on the value of the properties so transferred. (Particulars of the valuation of the properties are given in Official Year Book No. 14, p. 694). The temporary provisions of the Financial Agreement between the Commonwealth Government and the Governments of the several States provided *inter alia* that the Commonwealth Government would for the period of two years from 1st July, 1927 pay to each State interest at the rate of 5 per cent. per annum on the agreed value of transferred properties as follows:—New South Wales, £4,788,005; Victoria, £2,302,862; Queensland, £1,560,639; South Australia, £1,035,631; Western Australia, £736,432; and Tasmania, £500,754; a total of £10,924,323.

From 1st July, 1929, the Commonwealth Government assumed all liability for so much of the Public Debt of the States maturing in London bearing interest at the rate of 5 per cent. per annum as was equivalent to the agreed value of the transferred properties shown above. The Commonwealth Government received the freehold or equivalent title to the transferred properties consisting of land or interests in land, and all liability of the Commonwealth to the State in respect of transferred properties was extinguished from that date.

5. **1914–19 War Loan from the British Government.**—On the outbreak of the 1914–19 War, the Commonwealth Government obtained a loan from the British Government for the purpose of financing the prospective large military expenditure. At first, the arrangement was that the British Government should advance the sum of £18,000,000. Subsequently, further loans amounting to £31,500,000 were negotiated. In addition to this capital indebtedness of £49,500,000, a further sum of £42,696,500 was due to the British Government for the maintenance of Australian troops.

Early in 1921 an arrangement was concluded with the British Government, by which almost the entire debt (upwards of £92,000,000) was consolidated. The Commonwealth Government undertook to extinguish the debt in about 35 years by annual payments representing 6 per cent. on the original debt, providing for interest at approximately £4 18s. 4d. per cent., and a sinking fund contribution of approximately £1 1s. 8d. per cent. By a later arrangement with the British Government, however, principal and interest repayments for 1931–32 and subsequent years have been suspended. The principal outstanding on 30th June, 1945, was £79,724,000.

6. **Flotation of 1914–19 War Loans in Australia.**—In addition to the advances from the British Government, the Commonwealth Government raised large amounts of money in Australia. Full details of the seven War Loans are given in Official Year Book No. 14, pages 695 and 696.

7. Flotation of 1939-45 War Loans.—The following table shows particulars of loans floated since the outbreak of war :—

COMMONWEALTH LOANS RAISED IN AUSTRALIA FROM 1st DECEMBER, 1939.

Period of Loan.	Amount Invited.	Number of Subscribers.	Amount Subscribed.	Rate of Interest.	Year of Maturity.	Price.	Allocated to	
							Defence, and War.	Other Purposes.
	£'000.		£'000.	%			£'000.	£'000.
1.12.39	12,000	Banks	12,000	3½	1942-44	100	2,000	10,000
1.3.40			8,958	3½				
to	18,000	14,339			1945	100	7,676	10,489
15.3.40			9,207	3½	1950-56	100		
29.5.40			6,747	2½				
to	20,000	32,792			1945	100	20,582	
14.6.40			13,835	3½	1950-56	100		
28.11.40			7,692	2½				
to	28,000	21,830			1945	100	20,505	8,000
14.12.40			20,813	3½	1950-56	100		
30.4.41			13,642	2½				
to	35,000	57,217			1946	100	27,871	8,000
19.5.41			22,229	3½	1950-56	100		
7.10.41			10,730	2½				
to	30,000	83,378			1945-46	100	34,159	(a) 65,984
15.11.41	{ a 70,000	{ (a) 70,769 }	89,413	3½	1950-57	100		
17.2.42			12,869	2½				
to	35,000	244,589			1945-46	100	48,331	...
10.3.42			35,462	3½	1950-58	100		
2.6.42			7,032	2½				
to	35,000	196,513			1946-47	100	37,373	..
23.6.42			30,341	3½	1950-58	100		
30.6.42		(b)	3,019	2½			..	3,019
3.11.42			22,740	2½	1946-47	100		
to	{ a 77,300	{ 454,865 }			1946-47			
15.12.42	{ a 22,700	{ (a) 6,249 }	81,710	3½	1950-58	100	82,667	(a) 21,783
16.3.43			18,661	2½				
to	100,000	432,555			1947-48	100	101,806	..
20.4.43			83,145	3½	1950-59	100		
30.6.43		(b)	235	2½			..	235
2.8.43			2,973	2½	1947-48	100		
to	(a) 13,064	(a) 2,064			1947-48		..	(a) 12,252
16.8.43			9,279	3½	1950-59	100		
5.10.43			24,501	2½				
to	125,000	567,695			1947-48	100	126,408	..
9.11.43			101,907	3½	1950-59	100		
1.1.44	(c)	(b)	5,631	2½			..	(c) 5,631
28.3.44			25,710	2½	1948-49	100		
to	150,000	452,700			1948-49	100	150,549	..
13.5.44			124,839	3½	1950-60	100		
26.9.44			22,360	2½				
to	{ 112,479	{ 421,517 }			1948-49	100	113,938	(a) 40,644
4.11.44	{ a 47,521	{ (a) 41,927 }	132,222	3½	1950-60	100		
30.9.44	(c)	(b)	7,687	2½			..	(c) 7,687
2.1.45	(c)	(b)	4,963	3½	1950-60	100	..	(c) 4,963
13.3.45			12,334	2½				
to	100,000	418,930			1949-50	100	107,279	..
27.4.45			94,945	3½	1950-61	100		
25.7.45			13,500	2½				
to	(a) 25,614	(a) 17,011			1949-50	100	..	(a) 21,144
15.8.45			7,644	3½	1950-61	100		
25.9.45			24,094	2½				
to	85,000	260,505			1949-50	100	87,208	..
15.11.45			63,114	3½	1950-61			
Total	1,163,213	..	1,188,183	..	..	..	968,352	219,831

(a) Conversion.

(b) Special issue.

(c) For redemption of London Loans.

The totals in the table above include particulars of conversions as follows :—amount invited, £178,809,000 ; amount subscribed, £161,807,000 ; and of loans raised in Australia to redeem London loans as follows :—amount invited and subscribed, £18,281,000.

In addition to the amounts above, at 30th June, 1945, £62,323,000 had been subscribed by War Savings Certificates (Seven Years' Series), over £6,000,000 by Citizens' National Emergency (Interest Free) Loans, and £1,792,000 by National Savings Bonds.

After allowing for repurchases the net subscriptions to War Savings Certificates at 30th June, 1945 was £52,534,000.

An advance of £12,000,000, since redeemed, was made by the British Government for war purposes.

8. **London Conversion Loans.**—Loans aggregating £22,000,000 were due for redemption in London in 1932-33, and in addition the Government had optional rights of redemption over a further £88,000,000, all of which was carrying an interest burden of 5 per cent. or greater. These obligations, particularly the accumulation of loans with optional rights of redemption, presented some difficulty to the Government and led to the appointment of a Resident Minister in London, who, in conjunction with the Australian Loan Council, arranged for the conversion of Commonwealth and State securities amounting to £109,849,000 between October, 1932 and February, 1934. Particulars of these and subsequent conversions to June, 1941 are shown in the table on pages 820 and 821 of Official Year Book No. 34 and in previous issues. Particulars of the total amounts converted and the total savings on account of interest and exchange are also shown. In July, 1941, Commonwealth and State Stock to the value of £30,011,400 on account of the Commonwealth, Victoria and Queensland was converted, the new price of issue being £99 per £100, the rate of interest $3\frac{1}{2}$ per cent. and the date of maturity 1961-66. The rates of interest on the original loan were $4\frac{3}{4}$ per cent. (£11,902,600) and 5 per cent. (£18,108,800). In December, 1942, Commonwealth Stock valued at £16,451,403 was converted, the new price of issue being £98 per £100, the rate of interest 3 per cent. and date of maturity 1944-46. The rate of interest on the original loan was $2\frac{1}{4}$ per cent.

9. **Other Loan Raisings.**—In addition to those loans, particulars of which are shown on page 694, there were sundry small amounts raised on behalf of the States for public works, redemptions, etc. During 1944-45 these loans, known as "Over the Counter Sales", amounted to £3,170,320.

10. **Public Debt for Commonwealth Purposes.**—(i) *General.* In the Public Debt tables which follow, the units of currency are, for debt maturing and interest payable in Australia, £ Australian, in London £ sterling, in New York £ sterling. The New York debt is payable in dollars, but for the purposes of the tables dollars have been arbitrarily converted to £ sterling at the rate of 4.8665 dollars to £1 stg.

(ii) *Total Debt.* Reference has already been made to the development of the Commonwealth Public Debt and the following table shows the debt of the Commonwealth (excluding that of the States) at 30th June, 1945:—

PUBLIC DEBT FOR COMMONWEALTH PURPOSES AT 30th JUNE, 1945.

Particulars.	Maturing in—			Total.
	London.	New York.	Australia.	£
War (1914-19) Debt—	£ Stg.	£ Stg.	£ Aust.	
Stock and Bonds	11,020,160	..	159,165,317	170,185,477
Indebtedness to United Kingdom Government	79,724,220	..	..	79,724,220
War and Peace Savings Certificates and Stamps, War Gratuity Bonds .. .. .	..	..	152,353	152,353
Total	90,744,380	..	159,317,670	250,062,050
War (1939-45) Debt—				
Stock and Bonds	5,775,000	..	861,550,876	867,325,876
Advance Loan Subscriptions .. .. .	..	..	6,348,500	6,348,500
Citizens' National Emergency Loans	347,000	..	5,789,313	6,136,313
National Savings Bonds .. .. .	..	..	1,792,050	1,792,050
War Savings Certificates .. .. .	..	..	52,533,889	52,533,889
War Savings Stamps .. .. .	..	..	420,321	420,321
National Savings Stamps .. .. .	..	..	67,059	67,059
Treasury Bills, Internal .. .. .	..	..	85,500,000	85,500,000
Treasury Bills, Public .. .. .	..	..	343,280,000	343,280,000
Total	6,122,000	..	1,357,272,038	1,363,394,038
Works and other Purposes—				
Stock and Bonds	61,392,130	15,790,414	24,796,514	101,979,058
Treasury Bills and Debentures	2,720,160	..	..	2,720,160
Treasury Bills, Internal .. .. .	..	..	10,810,000	10,810,000
Total, Works and other Purposes	64,112,290	15,790,414	35,606,514	115,509,218
Total, Commonwealth Purposes	160,978,670	15,790,414	1,552,196,222	1,728,965,306

PER HEAD OF POPULATION (a)

	(Stk.)	(Sug.)	(Aust.)	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
War (1914-19) Debt	12 6 0	..	21 11 10	33 17 10
War (1939-45) Debt	0 16 7	..	183 19 1	184 15 8
Works and other Purposes	8 13 9	2 2 10	4 16 6	15 13 1
Total Commonwealth Purposes	21 16 4	2 2 10	210 7 5	234 6 7

(a) Based on estimated population of Australia at 30th June, 1945.

(iii) *Place of Flotation.* Since 1931-32 few new loans have been raised overseas. None have been raised in New York since 1927-28. Those raised in London have been almost exclusively conversion loans, particulars of which are given on pages 694-5 of this issue and in previous issues.

PUBLIC DEBT FOR COMMONWEALTH PURPOSES AT 30th JUNE : PLACE OF FLOTATION

Place of Flotation, etc.	1939.	1942.	1943.	1944.	1945.
War (1914-19) Debt—					
London £ Stg.	90,744,381	90,744,380	90,744,380	90,744,380	90,744,380
Total Overseas .. £ Stg.	90,744,381	90,744,380	90,744,380	90,744,380	90,744,380
Australia £ Aust.	175,193,890	167,219,614	166,531,732	164,628,150	159,317,670
Total War (1914-19) Debt £	265,938,271.	257,963,994	257,276,112	255,372,530	250,062,050
War (1939-45) Debt—					
London £ Stg.	..	17,875,000	18,128,500	6,122,000	6,122,000
Total Overseas .. £ Stg.	..	17,875,000	18,128,500	6,122,000	6,122,000
Australia £ Aust.	..	321,344,875	712,578,262	1,098,260,599	1,357,272,038
Total War (1939-45) Debt £	..	339,219,875	730,706,762	1,104,382,599	1,363,394,038
Works and other Purposes—					
London £ Stg.	72,096,566	65,134,096	64,884,096	64,362,290	64,112,290
New York.. .. £ Stg.	15,913,501	15,876,718	15,790,414	15,790,414	15,790,414
Total Overseas .. £ Stg.	88,010,067	81,010,814	80,674,510	80,152,704	79,902,704
Australia £ Aust.	43,302,593	39,956,165	38,241,177	36,190,330	35,606,514
Total Debt for Works, etc. £	131,312,660	120,966,979	118,915,687	116,343,034	115,509,218
Total Debt—					
London £ Stg.	162,840,947	173,753,476	173,756,976	161,228,670	160,978,670
New York.. .. £ Stg.	15,913,501	15,876,718	15,790,414	15,790,414	15,790,414
Total Overseas .. £ Stg.	178,754,448	189,630,194	189,547,390	177,019,084	176,769,084
Australia £ Aust.	218,496,483	528,520,654	917,351,171	1,299,079,079	1,552,196,222
Grand Total £	397,250,931	718,150,848	1,106,898,561	1,476,098,163	1,728,965,306

(iv) *Amount of Debt at Various Rates of Interest.*—The first debt taken over from South Australia consisted mainly of securities bearing interest varying from 3 per cent. to 4 per cent., the average rate of interest for the first year being £3 12s. 4d. For the first three years the increase in the debt was due almost entirely to the expansion of the 3½ per cent. stock of the Loan Fund, consequently the average rate of interest fell until on 30th June, 1914, it stood at £3 11s. 10d. With the loans raised for war and repatriation purposes interest rates rose until the National Debt Conversion Loan (July–August, 1931) reduced interest rates on internal loans by 22½ per cent. Conversion loans in London referred to on p. 695 reduced the average rate of interest on debt

maturing in London by more than £1 per cent. from £4 18s. 11d. per cent. in 1931 to £3 17s. 10d. in 1942. During the next three years the average rate rose to £4 os. 10d. in 1945. The average rate of interest on internal loans at 30th June, 1945 was £2 11s. 10d. per cent. as compared with £5 9s. 10d. per cent. at 30th June, 1931. The average rate of interest payable on the total debt decreased from £5 4s. 11d. per cent. in 1931 to £2 13s. 8d. per cent. at 30th June, 1945.

The accompanying table gives particulars of the amounts of debt for Commonwealth purposes at 30th June, 1945, according to the various rates of interest :—

PUBLIC DEBT FOR COMMONWEALTH PURPOSES AT 30th JUNE, 1945 : AMOUNTS AT EACH RATE OF INTEREST.

Rates of Interest.	Debt Maturing in—			
	London.	New York.	Australia.	Total.
Per cent.	£ Stg.	£ Stg.	£ Aust.	£
5.0	29,128,495	12,242,236	..	41,370,731
4.91667	(a) 79,724,220	..	..	79,724,220
4.5 .. .. .	..	3,548,178	..	3,548,178
4.2625 .. .. .	..	..	192,468	192,468
4.0	5,775,000	..	86,981,369	92,756,369
3.875 .. .. .	..	..	45,991,910	45,991,910
3.75	20,730,800	..	6,552,140	27,282,940
3.675 .. .. .	..	..	66,510	66,510
3.625 .. .. .	..	..	4,274,740	4,274,740
3.5	5,989,400	..	..	5,989,400
3.375 .. .. .	..	..	4,329,850	4,329,850
3.25	16,563,595	..	6778,041,319	794,604,914
3.0 .. .. .	..	..	5,343,300	5,343,300
2.75 .. .. .	..	..	11,729,070	11,729,070
2.5 .. .. .	..	..	162,507,610	162,507,610
2.25	1,720,160	..	..	1,720,160
2.0	1,000,000	..	..	1,000,000
1.0 .. .. .	..	..	439,590,000	439,590,000
Citizens' National Emergency Loans (Interest Free) ..	347,000	..	5,789,343	6,136,343
Overdue .. .. .	..	..	(c) 315,062	315,062
War (1939-45) Savings Stamps ..	..	..	410,321	410,321
National Savings Stamps ..	..	..	67,059	67,059
War (1914-19) Savings Stamps ..	..	..	14,151	14,151
Total	160,978,670	15,790,414	1,552,196,222	1,728,965,306
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Average rate per cent.	4 0 10	4 17 9	2 11 10	2 13 8

(a) War Debt due to Government of the United Kingdom (see par. 5, page 693). (b) Includes War (1939-45) Savings Certificates, £52,533,889. (c) Includes War Gratuity Bonds, £11,964 and War (1914-19) Savings Certificates £4,318.

(v) *Amount of Interest Payable.* The next table shows the interest payable in Australia and overseas on the Commonwealth Public Debt (excluding that of the States) at 30th June in the years 1939 and 1942 to 1945 :—

PUBLIC DEBT FOR COMMONWEALTH PURPOSES AT 30th JUNE : INTEREST PAYABLE.

Interest on and where payable.	1939.	1942.	1943.	1944.	1945.
War (1914-19) Debt—					
London £ Stg.(a)	426,008	426,008	426,008	426,008	426,008
Australia £ Aust.	6,949,706	6,433,774	6,389,532	6,331,464	5,981,923
Total War (1914-19) Debt	£ 7,375,714	6,859,782	6,815,540	6,757,472	6,407,931
Average Rate %	£3 19s. 3d.	£3 17s. 0d.	£3 16s. 9d.	£3 16s. 11d.	£3 15s. 4d.
War (1939-45) Debt—					
London £ Stg.	..	591,000	231,000	231,000	231,000
Australia £ Aust.	..	8,506,827	17,623,865	26,583,590	33,092,768
Total War (1939-45) Debt..	£ ..	9,097,827	17,854,865	26,814,590	33,323,768
Average Rate %	..	£2 14s. 7d.	£2 10s. 2d.	£2 8s. 10d.	£2 9s. 1d.
Works and other Purposes—					
London £ Stg.	2,977,546	2,638,822	2,633,876	2,620,097	2,614,472
New York £ Stg.	777,586	775,930	771,780	771,780	771,780
Total Overseas £ Stg.	3,755,132	3,414,752	3,405,656	3,391,877	3,386,252
Australia £ Aust.	1,394,921	1,194,439	1,130,922	1,029,891	972,024
Total Debt for Works, etc. ..	£ 5,150,053	4,609,191	4,536,578	4,421,768	4,358,276
Average Rate %	£3 18s. 5d.	£3 16s. 2d.	£3 16s. 4d.	£3 16s. 2d.	£3 15s. 6d.
Total Debt—					
London £ Stg.(a)	3,403,554	3,655,830	3,290,884	3,277,105	3,271,480
New York £ Stg.	777,586	775,930	771,780	771,780	771,780
Total Overseas £ Stg.	4,181,140	4,431,760	4,062,664	4,048,885	4,043,260
Australia £ Aust.	8,344,627	16,135,040	25,144,319	33,944,945	40,046,655
Grand Total £	12,525,767	20,566,800	29,206,983	37,993,830	44,089,915
Average Rate %	£3 18s. 11d.	£3 5s. 1d.	£2 17s. 11d.	£2 14s. 8d.	£2 13s. 8d.

(a) Excludes suspended interest on War Debt owing to British Government.

(vi) *Dates of Maturity.* In the following tables the Commonwealth Public Debt at 30th June, 1945 has been classified according to (a) the latest year of maturity and (b) the earliest year of maturity.

PUBLIC DEBT FOR COMMONWEALTH PURPOSES AT 30th JUNE, 1945.

CLASSIFIED ACCORDING TO LATEST YEAR OF MATURITY.

Year of Maturity (year ended 30th June).				Maturing in—			Total. £
				London.	New York.	Australia.	
				£ Stg.	£ Stg.	£ Aust.	
1946	..	..	..	2,720,160	..	455,648,920	458,369,080
1947	..	..	..	..	..	30,852,360	30,852,360
1948	..	..	..	..	..	51,793,397	51,793,397
1949	..	..	..	..	..	48,436,660	48,436,660
1950	..	..	..	..	..	44,629,860	44,629,860
1951	..	..	..	..	..	25,598,971	25,598,971
1952	..	..	..	..	..	1,714,050	1,714,050
1953	..	..	..	..	..	1,792,050	1,792,050
1954	..	..	..	13,780,100	..	12,655,830	26,435,930
1955	..	..	..	..	..	40,571,881	40,571,881
1956	..	..	..	..	13,494,156	14,166,248	27,660,404
1957	..	..	..	6,950,700	..	44,537,090	51,487,790
1958	..	..	..	..	2,296,258	59,020,466	61,316,724
1959	..	..	..	..	..	121,854,230	121,854,230
1960	..	..	..	..	..	189,335,382	189,335,382
1961	..	..	..	16,233,817	..	238,001,950	254,235,767
1962	..	..	..	..	..	105,794,165	105,794,165
1964	..	..	..	5,775,000	..	..	5,775,000
1967	..	..	..	5,989,400	..	..	5,989,400
1975	..	..	..	329,778	..	..	329,778
1976	..	..	..	29,128,495	..	..	29,128,495
War (1939-45) Savings Certificates .. .. .	..	..	..	..	..	52,533,889	52,533,889
War (1939-45) Savings Stamps .. .. .	..	..	..	..	..	410,321	410,321
National Savings Stamps .. .. .	..	..	..	..	..	67,059	67,059
Citizens' National Emergency Loans .. .. .	..	..	..	347,000	..	5,789,343	6,136,343
Advance Loan Subscriptions .. .. .	..	..	..	..	..	6,348,500	6,348,500
War (1914-19) Savings Certificates .. .. .	..	..	..	..	..	4,318	4,318
Peace Savings Certificates .. .. .	..	..	..	..	..	121,919	121,919
War (1914-19) Savings Stamps .. .. .	..	..	..	..	..	14,151	14,151
Overdue .. .. .	..	..	..	..	..	(a) 310,744	310,744
Annual repayments .. .. .	..	..	..	(b) 79,724,220	..	..	79,724,220
Half-yearly .. .. .	..	..	..	..	..	192,468	192,468
Total .. .. .	..	..	..	160,978,670	15,790,414	1,552,196,222	1,728,965,306

(a) Includes War Gratuity Bonds, £11,964.
British Government.

(b) Repayments suspended by arrangement with

PUBLIC DEBT FOR COMMONWEALTH PURPOSES AT 30th JUNE, 1945.

CLASSIFIED ACCORDING TO EARLIEST YEAR OF MATURITY.

Year of Maturity (year ended 30th June).				Maturing in—			Total.
				London.	New York.	Australia.	
				£ Stg.	£ Stg.	£ Aust.	£
1946	..	..	..	31,848,655	..	475,325,400	507,174,055
1947	..	..	..	..	..	41,487,900	41,487,900
1948	..	..	..	..	2,296,258	65,554,667	67,850,925
1949	..	..	..	13,780,100	..	48,990,350	62,770,450
1950	..	..	..	..	..	12,322,220	12,322,220
1951	..	..	..	..	..	737,012,011	737,012,011
1952	..	..	..	..	..	1,714,050	1,714,050
1953	..	..	..	6,950,700	9,945,978	42,363,931	59,260,609
1954	..	..	..	..	..	14,373,610	14,373,610
1955	..	..	..	..	..	..	..
1956	..	..	..	16,233,817	3,548,178	12,448,468	32,230,463
1957	..	..	..	..	..	..	..
1958	..	..	..	..	..	11,933,586	11,933,586
1959	..	..	..	..	..	..	..
1960	..	..	..	..	..	11,843,182	11,843,182
1961	..	..	..	5,775,000	..	..	5,775,000
1962	..	..	..	5,989,400	..	11,034,135	17,023,535
1965	..	..	..	329,778	..	..	329,778
War (1939-45) Savings Certificates	..	..	..	..	..	52,533,889	52,533,889
War (1939-45) Savings Stamps	..	..	..	..	..	410,321	410,321
National Savings Stamps	..	..	..	..	..	67,059	67,059
Citizens' National Emergency Loans	..	..	..	347,000	..	5,789,343	6,136,343
Advance Loan Subscriptions	..	..	..	..	..	6,348,500	6,348,500
War (1914-19) Savings Certificates	..	..	..	..	..	4,318	4,318
Peace Savings Certificates	..	..	..	..	..	121,919	121,919
War (1914-19) Savings Stamps	..	..	..	..	..	14,151	14,151
Overdue	..	..	..	..	..	(a) 310,744	310,744
Annual repayments	..	..	..	(b) 79,724,220	..	..	79,724,220
Half-yearly	..	..	..	..	..	192,468	192,468
Total	..	..	..	160,978,670	15,790,414	1,552,196,222	1,728,965,306

(a) Includes War Gratuity Bonds, £11,964.
British Government.

(b) Repayments suspended by arrangement with

11. **Sinking Funds.**—Particulars relating to the creation of sinking funds are included in Year Book issues prior to No. 23.

The old sinking funds were merged in the National Debt Sinking Fund on 11th August, 1923. Particulars of receipts and expenditure of the Commonwealth Account for the years 1938-39 and 1941-42 to 1944-45 are as follows:—

PUBLIC DEBT FOR COMMONWEALTH PURPOSES : SINKING FUND.

Items.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.	Total 1923-24 to 1944-45.
	£	£	£	£	£	£
Cr. Brought forward ..	1,252,784	3,431,212	3,864,009	1,056,040	1,074,316	..
Balance transferred to Fund on 11th August, 1923 ..	..	..	..	..	..	2,262,983
From Consolidated Revenue	3,917,825	6,547,177	8,672,355	10,839,972	12,597,457	90,970,941
Repayments of Sundry Loans ..	16,510	160	..	796,825	219,748	2,348,285
Purchase-money and Re- payments under War Service Homes Act ..	628,950	676,036	740,791	812,367	851,813	14,287,008
Half Net Profit Common- wealth Bank ..	321,448	188,070	447,831	632,867	741,943	7,696,037
Reparation Moneys ..	148	..	..	..	..	5,574,245
Interest on Investments ..	32,381	42,218	60,843	42,380	20,334	1,016,629
Other Contributions ..	13,453	12,177	12,177	12,177	12,177	243,599
Total ..	6,183,499	10,897,050	13,798,006	14,192,628	15,517,788	124,399,727
Dr. Redemptions ..	3,052,336	7,033,041	12,741,966	13,118,312	11,555,205	120,437,144
Carried forward ..	1,131,163	3,864,009	1,056,040	1,074,316	3,962,583	3,962,583

Particulars of repayment of the British Government loan are given on page 693.

Information regarding the transactions of the States' Account of the National Debt Sinking Fund is published in the State Finance section of this issue, and, in greater detail, in the *Finance Bulletin* issued by this Bureau.

§ 5. Cost of 1914-19 War and Repatriation.

In view of the importance of the subject, a further reference is here made to the cost of the 1914-19 War. The general policy of the Commonwealth Government has been to pay from Consolidated Revenue all charges for interest, sinking fund, pensions and other recurring charges consequent upon the War, and part of the expense of repatriation. On the other hand, the whole direct cost of the War and the larger proportion of the cost of repatriation have been paid from loans. Detailed particulars

relating to Repatriation, War and Service Pensions appear in Chapter X. "Repatriation" of this issue. The total cost from both sources to 30th June, 1945 is set out in the following table:—

COMMONWEALTH 1914-19 WAR EXPENDITURE.

Period.	From Consolidated Revenue Fund.			War Loan Expenditure.(b)
	War and Re- patriation Ser- vices, including War Pensions.	Interest and Sinking Fund. (a)	Total.	
	£'000.	£'000.	£'000.	£'000.
1914-15 to 1918-19 ..	15,541	30,694	46,235	219,213
1919-20 to 1923-24 ..	50,370	94,507	144,877	77,374
1924-25 to 1928-29 ..	43,334	93,147	136,481	Cr. 52
1929-30 to 1933-34 ..	44,871	66,832	111,703	Cr. 5
1934-35 to 1938-39 ..	45,238	47,834	93,072	..
1939-40	9,343	9,492	18,835	..
1940-41	9,142	9,461	18,603	..
1941-42	9,044	9,574	18,618	..
1942-43	9,446	9,276	18,722	..
1943-44	10,400	9,204	19,604	..
1944-45	10,276	9,013	19,289	..
Discounts and Flotation Ex- penses on Loans, including Redemption and Conversion Loans	(c)	..	..	5,999
Indebtedness to the Govern- ment of the United Kingdom for payments made, services rendered, and goods supplied during the War .. ..	..	..	..	(d) 43,398
War Gratuities paid in cash ..	452	..	452	27,063
Total to 30th June, 1945..	257,457	(e) 389,034	646,491	372,990

NOTE.—For particulars of expenditure relating to the 1939-45 War, see §6, pages 703-5.

(a) Excludes interest on amounts raised for the States for Soldier Land Settlement. (b) Excludes expenditure on War Service Homes from 1923-24. (See page 692.) (c) Included above. (d) The total indebtedness to the Government of the United Kingdom involved in the Funding Arrangements Act 1921 was £92,480,000, the balance, £49,082,000, for cash supplied, being included above. At 30th June, 1945 the amount outstanding had been reduced to £79,724,000. (e) Interest, £327,561,000; Sinking Fund, £61,473,000.

§ 6. Cost of Defence and 1939-45 War Services.

Details of the expenditure on Defence and War Services by the Departments of Defence, Navy, Army, Air, Munitions, Aircraft Production, Supply and Shipping, and Home Security are shown in the following table. Expenditure on defence and war services by other departments, including Labour and National Service, Information, Post-war Reconstruction, etc., is included under the heading of Other War Services.

The table hereunder shows, for the last six years, particulars of the combined expenditures from revenue, trust and loan funds on Defence and War Services, including works. Details of expenditure for the years 1940-41 to 1944-45 were not allotted to the various funds, and the total expenditure only was apportioned.

EXPENDITURE FROM REVENUE, TRUST AND LOAN FUNDS : DEFENCE AND 1939-45 WAR SERVICES.

Details.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.	1944-45.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
Defence—						
Administrative	114	137	117	130	110	107
Publicity Censorship .. .. .	..	..	9	43	45	(a)
National Register	61	(b)	(b)	(b)	(b)	(b)
Manpower Committee	15	37	49	(c)	(c)	(c)
Home Security .. .. .	..	6	(d)	(d)	(d)	(d)
Treasury—Defence Division	(e)	(e)	(e)	42	54	59
Central Medical Co-ordination Committee .. .. .	..	17	101	10	9	(f)
Buildings, works, etc.	43	134	82	21	10	9
Audit, Pensions, Interest, Sinking Fund, etc.	4	4	5	4	4	4
Total	237	335	363	250	232	179
Navy—						
Permanent Naval Forces—salaries and general expenses	2,957	4,368	6,466	9,410	12,500	12,666
General Services and Expenses—H.M.A. Ships and Depots	2,196	3,540	5,068	7,709	8,846	9,698
Civilian Services, Naval Establishments, etc.—Salaries and general expenses	785	1,180	1,853	2,730	3,404	3,585
Auxiliary vessels for naval defence purposes	828	774	639	1,143	767	334
Transport services	812	6,987	2,288	8,409	3,786	5,488
Merchant ships' equipment .. .. .	..	136	372	229	253	86
Naval construction and additions to the fleet	2,887	3,471	3,313	5,249	3,609	2,226
Graving Dock—towards cost of construction .. .. .	..	435	1,302	2,024	3,275	1,849
Miscellaneous war expenditure	270	122	30	109	143	178
Buildings, works, etc.	618	775	979	2,360	1,826	1,943
Maintenance and rent	29	43	42	45	62	121
Audit, Pensions, Interest, Sinking Fund, etc.	147	143	144	140	136	140
Total	11,529	21,974	22,496	39,557	38,607	38,314
Army -						
Australian Military Forces—pay and allowances	8,862	31,776	67,141	103,763	110,973	104,928
Camp Expenses—training and maintenance	2,615	13,564	19,205	36,989	32,774	25,627
General services	1,236	2,994	5,785	9,864	7,555	7,862
Civilian Services, Inspection Branch, etc.—Salaries and general expenses	753	1,543	2,726	3,772	3,373	2,830
Internees and Prisoners of War—maintenance	5	130	318	500	123	222
Australian Imperial Forces—maintenance overseas .. .. .	..	..	..	14,747	..	..
Arms, armament, ammunition, etc.	8,537	30,972	80,936	113,856	49,471	27,813
Buildings, works, etc.	4,045	7,221	9,504	14,180	11,085	4,330
Audit, Pensions, Interest, Sinking Fund, etc.	394	374	362	367	279	291
National Defence Contributions (Trust Account) .. .. .	..	..	596	334	133	76
Total	26,447	88,574	186,573	298,372	215,766	173,979

(a) Transferred to Department of Information.

(b) Provided under Department of Labour and National Service.

(c) Transferred to Manpower Directorate.

(d) Reconstituted as a separate Department.

(e) Included under Administrative.

(f) Transferred to Department of Health.

EXPENDITURE FROM REVENUE, TRUST AND LOAN FUNDS: DEFENCE AND
1939-45 WAR SERVICES—*continued.*

Details.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.	1944-45.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
Air—						
Royal Australian Air Force—pay and allowances	1,936	7,517	14,749	29,414	37,248	45,231
Civilian, Meteorological and General services	516	1,977	4,859	13,262	17,516	19,749
R. A. A. F. Squadrons—maintenance overseas	(a)	1,141	1,288	1,394	1,285	1,121
Training of R. A. A. F. personnel in Canada	553	4,111	3,513	6,463	3,320	237
Aircraft, equipment and stores	6,784	12,426	23,600	47,946	59,831	46,214
Buildings, works, etc.	1,748	4,720	9,654	9,606	8,900	7,377
Audit, Pensions, Interest, Sinking Fund, etc.	85	84	87	89	89	97
Total	11,622	31,976	57,750	107,274	128,189	120,026
Munitions—						
Administrative—salaries and general	(b)	224	1,287	2,847	2,911	2,269
Munitions Factories—salaries and general expenses(c)	108	92	..	163	80	173
Munitions Factories—working capital	671	480	1,859	..	..	..
Munitions Laboratories—salaries and general expenses .. .. .	..	..	161	253	344	334
Machinery, plant, etc., for manufacture of munitions	1,044	4,864	8,363	8,619	4,883	699
Armament Annexes—plant, material, etc.	444	1,813	2,984	3,424	2,046	1,260
Reserves of raw materials	625	2,502	1,000	(d)	(d)	(d)
Technical Training	27	771	734	529	104	114
Electric supply in Australia—development .. .. .	..	..	..	..	141	78
Shipbuilding—plant, etc. .. .. .	..	26	328	616	464	4
Standard Ships—construction .. .. .	..	4	698	1,982	2,062	2,690
Locomotives and Rolling Stock—Construction .. .. .	..	..	..	264	932	984
Buildings, works, etc.	751	4,062	10,268	9,182	4,881	965
Miscellaneous expenditure	653	20	82	219	329	396
Audit, Pensions, Interest, Sinking Fund, etc.	86	84	87	84	82	85
Total	4,409	14,942	27,871	28,182	19,259	10,051
Aircraft Production—						
Administrative—salaries and general expenses .. .. .	..	35	141	475	597	902
Engine Factory—construction, equipment, etc.	357	997	416	291	93	81
Buildings, works, etc.	127	75	66	1,084	408	437
Miscellaneous expenditure .. .. .	..	98	904	1,118	952	435
Audit, Pensions, Interest, Sinking Fund, etc. .. .. .	..	..	..	1	1	1
Total	484	1,205	1,527	2,969	2,051	1,856
Supply and Shipping—						
Administrative—salaries and general expenses	182	850	817	935	1,120	1,229
Flax Production—Mills, General expenses, etc. .. .. .	..	98	640	624	289	185
Reserves of stores, materials, etc. .. .. .	..	..	217	3,764	1,295	1,943
Oil Storage—Construction .. .. .	..	23	302	938	..	363
Power Alcohol Distilleries—Construction and production .. .. .	..	..	47	618	732	471
Shipping Branch .. .. .	..	..	..	1,605	1,825	2,261
Buildings, works, etc.	6	8	10	26	182	76
Miscellaneous expenditure	10	82	240	2,447	1,993	2,042
Audit, Pensions, Interest, and Sinking Fund, etc.	2	3	1	1	2	5
Total	200	1,064	2,274	9,958	7,438	8,575

(a) Included under Aircraft, Equipment and Stores. (b) Included with Department of Supply and Development. (c) Part only—balance provided from Trust Fund (Working Capital). (d) Included under Department of the Army.

EXPENDITURE FROM REVENUE, TRUST AND LOAN FUNDS: DEFENCE AND
1939-45 WAR SERVICES—continued.

Details.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.	1944-45.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
Home Security—						
Administrative—salaries and general expenses .. ..	..	(b)	42	126	83	32
Air Raid Precautions—						
Payments to the States .. ..	..	..	288	715	82	23
Purchase of equipment .. ..	..	..	..	1,086	53	..
Commonwealth Establishments .. ..	..	..	175	65	2	6
Bulk oil installations, protective measures .. ..	..	..	229	..	..	..
Miscellaneous expenditure .. ..	..	..	3	5	34	9
Total .. ..	..	(b)	737	1,997	254	70
Other War Services—						
Interest on Loans for War purposes	393	1,896	5,213	11,168	18,722	26,586
Exchange on interest remittances to London	29	103	150	59	59	59
Sinking Fund on Loans for War purposes	150	642	1,749	3,893	5,982	7,554
War Pensions .. ..	..	..	207	662	1,737	2,771
Peace Officers	7	111	370	792	725	629
United Nations' Relief and Rehabilitation Administration .. ..	..	..	..	..	..	47
Price Stabilization Subsidies .. ..	..	..	..	6	7,006	10,809
Division of Import Procurement .. ..	..	..	378	1,267	(a)4,579	410
Rationing Commission—salaries and general expenses .. ..	..	..	108	327	448	510
Prices Commission—salaries and general expenses	27	45	84	174	335	491
Assistance to primary production .. ..	..	..	33	3,085	12,322	14,280
Department of Labour and National Service—						
Administrative—salaries and general expenses .. ..	..	18	101	246	385	419
Man Power Directorate	(b)	(b)	163	763	1,098	1,039
Miscellaneous	(b)	29	21	115	108	69
Department of Post-war Reconstruction—						
Administrative—salaries and general expenses .. ..	..	..	..	15	299	418
Financial assistance to University Students .. ..	..	..	..	..	172	207
Commonwealth Reconstruction Training Scheme .. ..	..	..	..	..	42	510
Miscellaneous .. ..	..	..	..	..	28	21
Department of Repatriation .. ..	..	..	62	178	403	1,101
Department of Information .. ..	..	..	218	150	199	(e)298
Other Departments	137	779	2,756	5,212	7,476	6,839
Other Administrations (Recoverable Expenditure) (d) .. ..	..	6,960	9,502	Cr.1,181	4,361	2,897
Total	787	10,759	21,115	26,931	66,486	77,964
Reciprocal Lend-Lease to the United States Forces .. ..	..	..	..	58,957	110,426	89,133
Miscellaneous Credits .. ..	..	..	..	Cr.11,783	Cr.43,575	Cr.56,855
Credits from the Disposals Commission .. ..	..	..	..	..	..	Cr.2,602
Total, Defence and 1939-45 War Services—						
Consolidated Revenue Fund	24,884	65,681	109,234	159,478	167,843	194,574
Trust Fund (e)	2,017	3,567	(f) 596	(f) 334	(f) 133	(f) 76
Loan Fund	28,814	101,581	210,876	402,852	377,157	266,040
GRAND TOTAL	55,715	170,829	320,706	562,664	545,133	460,690

(a) Includes £4,001,000 Working Capital for payment to credit of Import Procurement Suspense Trust Account. (b) Included under Department of Defence. (c) Includes Publicity Censorship previously included with Department of Defence. (d) Munitions, Stores, etc. supplied to Governments of the United Kingdom and other Administrations. (e) Includes expenditure from excess receipts of previous years appropriated for Defence Equipment Trust Account and from National Defence Contributions Trust Account. (f) Expenditure from National Defence Contributions Trust Account.

§ 7. Commonwealth Public Service Superannuation Fund.

This Fund, which was inaugurated on 20th November, 1922, is maintained by contributions of officers of Parliament, of employees of the Commonwealth Public Service, the Defence Departments, and other Commonwealth authorities, and by payments from Consolidated Revenue, the latter being made when the officers retire on pension. Full particulars as to the benefits, etc., will be found in Official Year Book, No. 18, p. 383. In September, 1937, legislation was passed extending superannuation rights to approximately 1,600 employees of the Repatriation Commission, the War Services Homes Commission, the High Commissioner's Office, London, and the Council for Scientific and Industrial Research. By the same legislation a Provident account, forming part of the Superannuation Fund, was established, providing for compulsory contributions in respect of those employees who, through physical disabilities or failure to pass the required medical examination, are ineligible to contribute to the Superannuation Fund. Any other employee, whose contribution to the Superannuation Fund for the first two units of pension is in excess of the rate for age 45 years and above 5 per cent. of his salary, may elect to transfer to the Provident Account.

A further amendment to the Act in 1942 extended superannuation rights to certain temporary employees and to the employees of Semi-Governmental authorities set up by the Commonwealth. This amending Act also increased the rates of contribution for new contracts in accordance with the recommendation of the actuaries in their report on the Third Quinquennial Investigation of the Fund.

The number of contributors to the fund at 30th June, 1945 was 48,451 (41,794 males and 6,657 females) and the average pension contributed for was 5.837 units or £151 15s. 8d. per annum.

The income for the year 1944-45 was £1,421,925, of which officers' contributions represented £927,897 and interest on investments, etc. (including accrued interest), £349,447. The expenditure for the year was £325,330 of which £236,296 represented pension payments. At 30th June, 1945 the total funds invested amounted to £1,3582,040 (at cost). The average rate of interest on investments at 30th June, 1945 was £3 17s. 9d. per cent.

Pensions in force on 30th June, 1945, including contributory and non-contributory but excluding commuted pensions, numbered 9,025, with a net annual liability of £820,441 of which £577,390 represented the share payable from the Consolidated Revenue Fund.

C.—STATE FINANCE.

§ 1. General.

1. **Functions of State Governments.**—In comparing the financial returns of the States, allowance must be made for the various functions discharged by the respective Governments, and for local conditions in each case. Direct comparisons of the revenue, expenditure and debt of the individual States are difficult, owing to the fact that functions which in one State are assumed by the Central Government are in another relegated to municipal or semi-governmental bodies which are vested with certain defined borrowing powers and whose financial transactions are not included with those of the Central Government. Care, therefore, is needed in making comparisons, and the particulars contained in this Chapter should be read with those contained in Chapter XVI., "Local Government". In many respects, moreover, the budgets of the Australian Governments differ materially from those of most European countries, owing to the inclusion therein of the revenue and expenditure of departments concerned in rendering public services, such as railways, tramways, water supply, etc., which in other countries are often left to private enterprise.

2. **Accounts of State Governments.**—The various financial transactions of the States are in each case mainly concerned with one or other of three Funds—the "Consolidated Revenue Fund", the "Trust Fund", and the "Loan Fund". All revenue (except certain items paid into special funds) collected by the State is placed to the

credit of its Consolidated Revenue Fund, from which payments are made under the authority of an Annual Appropriation Act passed by the Legislature, or by a permanent appropriation under a Special Act.

Figures relating to New South Wales represent the transactions of the *Consolidated Revenue Fund* and the Business Undertakings included in the Annual Budget Papers. These latter are as follows:—Railways, Tramways and Omnibuses, Sydney Harbour Trust Section of the Maritime Services Board, and Road Transport and Traffic Fund. Deductions have been made from the Budget figures, however, in order to obviate duplications caused by inter-fund payments and to maintain uniformity from year to year in the presentation of statistics. In the year 1944-45 a deduction of £800,000 has thus been made from the Budget revenue total of £75,013,299 and from the expenditure total of £74,045,272. Particulars for all other States relate to the transactions of the Consolidated Revenue Fund.

In South Australia the special grant to cover the revenue deficit received under section 6 of the State Grants (Income Tax Reimbursement) Act 1942 (£553,172) has been excluded as this grant was not paid by the Commonwealth until after 30th June, 1945. This adjustment is necessary as tables showing Commonwealth and State revenue and expenditure combined are included in a later section of this chapter.

In Tasmania the separation of the Transport Commission's financial transactions from the Consolidated Revenue Fund from 1st July, 1939 has occasioned considerable decreases in the figures since 1939-40 as compared with those for the previous years.

The *Trust Fund* comprises all moneys held in trust by the Government, and includes such items as savings banks funds, sinking funds, insurance companies' deposits, etc.

The *Loan Fund* is debited with all loan moneys raised by the State, and credited with the expenditure therefrom on public works or other purposes.

3. *Inter-relation of Commonwealth and State Finances.*—A statement in some detail, covering the inter-relation of Commonwealth and State Finances during the period from the inception of Federation to the passing of the Financial Agreement Act 1928, was published in Official Year Book, No. 22, pages 379-80. On pages 685-691 of this issue details of the constitutional and other requirements for the distribution of Commonwealth revenues are given, and in section D.—Commonwealth and State Finance, para. 4, will be found a summary of the original Financial Agreement and subsequent agreements affecting it.

§ 2. State Consolidated Revenue Funds.

Division I.—Revenue.

1. *General.*—The principal sources of State revenue are:—

- (a) Taxation; (b) the Business Undertakings controlled by the State Governments; (c) Sale of and Rental from Crown lands; (d) Payments by Commonwealth Government under the Financial Agreement, Special Grants and Income Tax and Entertainments Tax Reimbursement Acts; (e) Interest on advances; and (f) Miscellaneous sources, comprising Fines, Fees, etc.

Of these sources, that yielding the largest revenue for the States as a whole is the group of Business Undertakings, the principal contributors being the Government Railways and Tramways. Next in magnitude are Commonwealth payments under the Income and Entertainments Tax Reimbursement Acts, followed in order by Taxation, the Commonwealth Payments under the Financial Agreement and Special Grants, and Interest Receipts. Since the introduction in 1942-43 of the Uniform Tax Scheme, Commonwealth payments under the Income and Entertainments Tax Reimbursement Acts have replaced revenue previously received from Income and Entertainments taxes.

2. *Revenue Received.*—The following table shows particulars of the total amounts and the amounts per head of consolidated revenue received by the several States during the years 1938-39 and 1941-42 to 1944-45.

STATE CONSOLIDATED REVENUE.

Year.	N.S.W. (a)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania. (a)	Total.
TOTAL COLLECTIONS.							
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1938-39	51,710	26,985	19,330	12,304	10,950	3,615	124,894
1941-42	65,866	33,112	23,663	15,002	11,940	3,359	152,942
1942-43	71,534	36,490	29,284	15,192	13,152	3,290	168,942
1943-44	72,471	35,544	28,968	15,545	13,589	3,499	169,616
1944-45	74,213	35,273	26,447	(a) 15,560	13,954	3,657	169,104

PER HEAD OF POPULATION.(b)							
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1938-39	18 18 3	14 7 10	19 4 0	20 14 0	23 13 4	15 5 2	18 1 6
1941-42	23 10 1	16 19 0	22 15 11	24 14 1	25 1 10	14 0 0	21 9 9
1942-43	25 5 5	18 10 3	22 1 7	24 15 9	27 7 9	13 12 7	23 10 8
1943-44	25 7 8	17 17 5	27 7 6	25 2 7	28 3 4	14 6 9	23 8 1
1944-45	25 14 6	17 11 9	24 13 8	24 17 8	28 11 8	14 16 7	23 1 11

(a) See § 1 par. 2, page 707.

(b) Based on mean population of each financial year.

3. Sources of Revenue.—(i) *General.* Classifying the revenue of the several States in the manner indicated in par. 1 above, particulars for the year 1944-45 are as follows:—

STATE CONSOLIDATED REVENUE : SOURCES, 1944-45.

Source of Revenue.	N.S.W. (a)	Victoria.	Q'land.	S. Aust. (a)	W. Aust.	Tasmania. (a)	Total.
TOTAL REVENUE.							
	£	£	£	£	£	£	£
Taxation (b) ..	6,082,166	4,295,250	2,331,200	1,911,235	942,095	921,091	16,483,037
Business Under- takings ..	39,359,696	18,317,645	13,683,037	7,671,968	6,859,483	3,503	85,895,332
Lands ..	1,654,243	937,678	1,639,510	241,478	348,542	91,294	4,912,745
Interest (n.e.i.) ..	420,528	1,473,683	899,475	875,480	463,137	450,254	4,582,557
Commonwealth Pay- ments—							
Under Financial Agreement and Special Grants	2,917,411	2,127,159	1,096,235	1,783,816	1,377,432	1,008,859	10,310,912
Income Tax Re- imbursement Act	14,829,990	6,422,764	5,733,737	2,311,791	2,488,238	879,796	32,666,316
Entertainments Tax Reimburse- ment Act ..	160,830	373,259	..	97,043	98,186	36,469	765,787
Miscellaneous ..	8,788,435	1,325,773	1,064,080	667,035	1,376,717	265,127	13,487,167
Total ..	74,213,299	35,273,211	26,447,274	15,559,846	13,953,830	3,656,393	169,103,853

PER HEAD OF POPULATION.(d)							
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Taxation (b) ..	2 2 2	2 2 10	2 3 6	3 1 1	1 18 7	3 14 9	2 5 1
Business Under- takings ..	13 12 10	9 2 8	12 15 5	12 5 5	14 1 0	0 0 3	11 14 7
Lands ..	0 11 6	0 9 4	1 10 7	0 7 9	0 14 3	0 7 5	0 13 5
Interest (n.e.i.) ..	0 2 11	0 14 8	0 16 10	1 8 0	0 19 0	1 16 6	0 12 6
Commonwealth Pay- ments—							
Under Financial Agreement and Special Grants	1 0 3	1 1 2	1 0 6	2 17 1	2 16 6	4 1 10	1 8 2
Income Tax Re- imbursement Act	5 2 10	3 4 1	5 7 0	3 13 11	5 1 11	3 11 4	4 9 3
Entertainments Tax Reimburse- ment Act ..	0 1 1	0 3 9	..	0 3 1	0 4 0	0 3 0	0 2 1
Miscellaneous ..	3 0 11	0 13 3	0 19 10	1 1 4	2 16 5	1 1 6	1 16 10
Total ..	25 14 6	17 11 9	24 13 8	24 17 8	28 11 8	14 16 7	23 1 11

(a) See § 1 par. 2, page 707 (b) In all States certain taxation collections are not paid into Consolidated Revenue Fund. For total collections see next page. (c) Includes £120,000 of Special Grant credited direct to Railway Revenue. (d) Based on mean population of the financial year.

In comparing the revenue of the States, it should be borne in mind that Business Undertakings which in one State may be controlled by the Government are, in another State, controlled by a Board or Trust. For example, in New South Wales and Western Australia the tramway systems are controlled by the Government, while in the other States ownership is largely vested in Trusts or private companies. Harbour and river services and water supply and sewerage are also controlled in some cases by the State and in others by Trusts. All the Tasmanian transport facilities are controlled by a Commission.

(ii) *Revenue from Taxation.*—(a) *General.* The following table shows, for the year 1944-45, particulars of all State taxation collections irrespective of whether such moneys have been paid into the Consolidated Revenue Funds or not. For this reason the particulars hereunder differ from those given in the tables relating to the Consolidated Revenue Funds, and represent a comprehensive statement of all taxation collections by the Government in each State. In this and the succeeding statements of taxation the collections have been grouped according to the nature of the tax rather than the method of collection. For example, stamp duties on betting tickets and bookmakers' licences have been included under "Entertainments Tax" instead of under "Stamp Duties" and "Licences" respectively. Commonwealth Payments under the State Grants (Income and Entertainments Tax Reimbursement) Acts are included because these grants have replaced revenue received by the States from Income and Entertainments taxes prior to the introduction of the Uniform Tax Scheme in 1942-43 :—

STATE REVENUE FROM TAXATION(a) : TOTAL COLLECTIONS, 1944-45.

Tax.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
	£	£	£	£	£	£	£
Probate and Succession Duties	2,779,573	1,853,991	701,235	521,179	275,477	136,308	6,267,763
Other Stamp Duties ..	1,337,285	886,718	586,834	236,179	228,755	72,760	3,348,531
Land	2,283	357,603	383,220	289,738	118,134	91,493	1,242,471
Income (Arrears) ..	526,010	94,236	87,263	49,209	57,762	7,157	821,637
Liquor	686,904	381,600	143,076	34,560	86,266	37,308	1,369,714
Lotteries .. ..	..	..	145,375	..	..	6504,270	649,645
Entertainments (c) ..	686,693	646,117	161,708	253,824	145,226	59,925	1,953,493
Motor	2,370,442	1,655,159	834,153	601,896	358,672	225,986	6,046,308
Licences (n.e.l.) ..	63,099	88,345	151,550	27,437	11,370	11,870	411,405
Other	319	19,043		7,338	31,034	..	
Total	8,452,608	5,982,812	3,194,414	2,021,360	1,312,696	1,147,077	22,110,967
Commonwealth Reimburse-							
ments—							
Income Tax	14,829,990	6,422,764	5,733,737	2,311,791	2,488,238	879,796	32,666,316
Entertainments Tax ..	160,830	373,259	..	97,043	98,186	36,469	765,787
GRAND TOTAL ..	23,443,428	12,778,835	8,928,151	4,430,194	3,899,120	2,063,342	55,543,070

(a) In this table the particulars represent the total net collections from all sources of taxation irrespective of whether such moneys are paid to Consolidated Revenue Funds. (b) Includes Income Tax on Lottery Prizes, £328,687. (c) Mainly Racing.

The table hereunder shows the percentage of collections under individual taxes on the total taxation revenue for the year 1944-45:—

STATE REVENUE FROM TAXATION: PERCENTAGES OF TOTAL, 1944-45.

Tax.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
	%	%	%	%	%	%	%
Probate and Succession Duties	11.86	14.51	7.86	11.76	7.06	6.60	11.28
Other Stamp Duties ..	5.70	6.94	6.57	5.33	5.87	3.53	6.03
Land ..	0.01	2.80	4.29	6.54	3.03	4.44	2.24
Income (Arrears) ..	2.24	0.74	0.98	1.11	1.48	0.35	1.48
Liquor ..	2.93	2.98	1.60	0.78	2.21	1.81	2.47
Lotteries ..	..	..	1.63	..	..	24.44	1.17
Entertainments ..	2.93	5.06	1.81	5.73	3.73	2.90	3.52
Motor ..	10.11	12.95	9.34	13.59	9.20	10.95	10.88
Licences (n.e.f.) ..	0.27	0.69	1.70	0.62	0.29	0.57	0.74
Other ..	..	0.15		0.17	0.80	..	
Total ..	36.05	46.82	35.78	45.63	33.67	55.59	39.81
Commonwealth Reimburse- ments—							
Income Tax ..	63.26	50.26	64.22	52.18	63.81	42.64	58.81
Entertainments Tax ..	0.69	2.92	..	2.19	2.52	1.77	1.38
GRAND TOTAL ..	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Prior to Federation, duties of Customs and Excise constituted the principal source of revenue from taxation. Prior to the introduction of the Uniform Income Tax Scheme the most productive State taxes were the various Income Taxes, which, in 1941-42, included Unemployment Relief, State Development and Hospital Taxes.

The total amounts and the amounts per head raised from all sources of taxation by the several State Governments, including amounts not paid into the Consolidated Revenue Fund and tax reimbursements received from the Commonwealth, during the five years 1938-39 and 1941-42 to 1944-45 are given in the following table:—

STATE REVENUE FROM TAXATION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
TOTAL COLLECTIONS.							
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1938-39	20,263	12,023	8,646	4,199	3,597	1,779	50,507
1941-42	24,798	12,924	8,942	4,791	3,818	1,986	57,259
1942-43 ^a	23,022	12,300	8,454	4,003	3,719	1,837	53,335
1943-44 ^a	23,012	12,406	8,783	4,146	3,832	1,948	54,127
1944-45 ^a	23,444	12,779	8,928	4,430	3,899	2,063	55,543

PER HEAD OF POPULATION.(b)

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1938-39	7 8 3	6 8 3	8 11 9	7 1 3	7 15 6	7 10 2	7 6 2
1941-42	8 17 0	6 12 4	8 12 3	7 17 9	8 0 5	8 5 7	8 0 11
1942-43 ^a	8 2 8	6 4 10	8 2 1	6 10 7	7 14 11	7 12 2	7 8 7
1943-44 ^a	8 1 3	6 4 0	8 6 0	6 14 1	7 18 11	7 19 8	7 9 4
1944-45 ^a	8 2 6	6 7 5	8 6 8	7 1 8	7 19 9	8 7 4	7 11 9

(a) Includes Commonwealth Income and Entertainments Tax Reimbursements.

(b) Based on mean population of each financial year.

(b) *Probate and Succession Duties.* Probate duties have been levied for many years in all the States, but the provisions of the Acts governing the payment of duty differ widely both in regard to the ordinary rates and those which apply to special beneficiaries. A table showing the values of the estates in which probates and letters of administration were granted is given in Chapter XVII. "Private Finance".

The duties collected for the five years 1938-39 and 1941-42 to 1944-45 are as follows:—

STATE PROBATE AND SUCCESSION DUTIES : NET COLLECTIONS.

State.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£	£
New South Wales ..	2,364,124	2,775,752	2,882,050	2,710,824	2,779,573
Victoria	1,374,355	1,426,525	1,517,895	1,778,266	1,853,991
Queensland	677,037	605,375	631,929	746,629	701,235
South Australia ..	366,526	586,899	381,710	399,796	521,179
Western Australia ..	123,798	180,240	179,288	232,762	275,477
Tasmania	94,669	139,980	120,665	144,705	136,308
Total	5,000,509	5,714,771	5,713,537	6,012,982	6,267,763

(c) *Other Stamp Duties.* The revenue derived from stamp duties (excluding probate and succession duties and stamp duties on betting tickets) for the five years 1938-39 and 1941-42 to 1944-45 is shown in the accompanying table:—

OTHER STATE STAMP DUTIES : NET COLLECTIONS.

State.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£	£
New South Wales ..	1,286,124	1,446,042	1,203,885	1,214,661	1,337,285
Victoria	959,727	938,551	809,237	823,452	886,718
Queensland	610,110	489,166	427,869	502,012	586,834
South Australia ..	249,729	232,732	211,632	223,355	236,179
Western Australia ..	274,995	219,452	195,103	204,580	228,755
Tasmania	84,832	75,219	68,246	74,360	72,760
Total	3,465,517	3,401,162	2,915,972	3,042,420	3,348,531

(d) *Land Tax.* All the States impose a land tax, Queensland, the last State to fall into line, collecting its first levy in 1915-16. In the other States the impost is of long standing. In New South Wales the State land tax is levied on the unincorporated portion of the Western Division of the State only.

The following table shows the amounts collected by means of such taxes during the years 1938-39 and 1941-42 to 1944-45 :—

STATE LAND TAX : NET COLLECTIONS.

State.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£	£
New South Wales ..	2,154	2,137	2,130	3,140	2,283
Victoria.. ..	482,336	516,282	355,007	359,983	357,603
Queensland ..	401,682	400,987	391,268	387,475	383,220
South Australia ..	321,482	300,219	305,577	297,303	289,738
Western Australia ..	114,623	135,939	132,102	121,808	118,134
Tasmania ..	85,069	92,809	92,565	92,532	91,493
Total	1,407,346	1,448,373	1,278,649	1,262,241	1,242,471

(e) *Income Taxes.* State taxes levied on incomes prior to the introduction of the Uniform Tax Scheme in 1942-43 were as follows :—

New South Wales—Income Tax, Super Tax and Further Tax on Undistributed Income of Companies ;

Victoria—Income Tax, Special Income Tax, and Unemployment Relief Tax ;

Queensland—Income Tax, Super Tax, Additional Tax and Income (State Development) Tax ;

South Australia—Income Tax ;

Western Australia—Income Tax, Hospital Tax and Gold Mining Profits Tax ;

Tasmania—Income Tax.

Some details of these taxes are given in earlier issues of this Year Book.

When the Uniform Tax Scheme was introduced in 1942-43 these taxes, together with the Commonwealth War Tax, were discontinued, and the Commonwealth Income Tax rates were increased to raise the revenue previously raised by these taxes. The States are reimbursed by the Commonwealth for the revenue lost to them by the discontinuance of these taxes.

In the following table total State collections of the taxes mentioned above are shown for the years 1938-39 and 1941-42. For the years 1942-43, 1943-44 and 1944-45 the total of Commonwealth Reimbursements and arrears of State taxes collected are shown.

STATE INCOME AND DIVIDEND TAXES : NET COLLECTIONS.

State.	1938-39.	1941-42.	1942-43.(a)	1943-44.(a)	1944-45.(a)
	£	£	£	£	£
New South Wales ..	12,703,150	16,935,928	15,493,592	15,356,000	15,356,000
Victoria.. ..	6,250,508	7,188,184	6,890,377	6,517,000	6,517,000
Queensland ..	5,608,603	6,193,598	5,857,650	5,821,000	5,821,000
South Australia ..	2,102,928	2,818,846	2,368,632	2,361,000	2,361,000
Western Australia(b)	2,338,616	2,624,129	2,546,000	2,546,000	2,546,000
Tasmania ..	787,396	1,108,847	959,843	892,531	886,953
Total	29,791,201	36,869,532	34,116,094	33,493,531	33,487,953

(a) Includes revenue received under the State Grants (Income Tax Reimbursement) Act 1942.

(b) Includes Gold Mining Profits Tax.

(f) *Motor Taxation.* Motor taxation comprises tax and registration fees on motor vehicles, and licences of motor dealers, motor drivers and motor cycle riders, and public vehicles except when controlled by local government authorities. The following table shows the collections for the five years 1938-39 and 1941-42 to 1944-45 :—

MOTOR TAXATION : NET COLLECTIONS.

State.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£	£
New South Wales ..	2,762,678	2,504,095	2,243,807	2,326,186	2,370,442
Victoria ..	1,913,689	1,675,256	1,492,745	1,582,439	1,655,159
Queensland ..	939,757	877,727	738,956	807,844	834,153
South Australia ..	715,944	505,528	561,618	571,928	601,896
Western Australia ..	453,053	374,380	356,804	380,780	358,672
Tasmania ..	175,591	184,682	201,017	214,750	225,986
Total ..	6,960,712	6,121,668	5,594,947	5,883,927	6,046,308

Except in the case of South Australia, the proceeds of motor tax and motor registration fees are paid into special funds and the amounts do not appear in the Consolidated Revenue Funds. The decline which commenced in 1941-42 is due to the falling off in registrations because of petrol rationing and to the reductions in most States of 20 per cent. or 25 per cent. in registration fees.

(iii) *Business Undertakings.* (a) 1944-45. A very large proportion of State gross revenues is made up of receipts from business undertakings under the control of the Governments. The principal of these are railways and tramways, harbour works, water supply and sewerage and electricity supply, and, in addition, State batteries for the treatment of auriferous ores are included for Western Australia, and various minor revenue-producing services are rendered by the Governments of all States. In this connexion see C. State Finance, § 1, par. 2, page 707. For the year 1944-45 the revenue from these sources was £85,895,332 or 50·8 per cent. of the revenue from all sources. Details of revenue are as follows :—

STATE REVENUE FROM BUSINESS UNDERTAKINGS, 1944-45.

Source.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.(a)	Total.
	£	£	£	£	£	£	£
Railways ..	631,577,137	615,590,029	13,682,994	45,521,375	4,271,288	..	70,642,823
Tramways and Omnibuses ..	5,789,782	(e) 129,348	..	..	509,530	..	6,428,660
Harbours, Rivers, Lights ..	1,445,975	(f) 176,289	..	644,478	380,170	..	2,646,912
Water Supply, Sewerage, Irrigation and Drainage ..	..	828,424	..	1,354,069	993,955	..	3,176,448
Electricity Supply ..	..	856,090	..	..	577,979	3,503	1,437,572
Other ..	(g) 546,802	737,465	43	152,046	126,561	..	1,562,917
Total ..	39,359,696	18,317,645	13,683,037	7,671,968	6,859,483	3,503	85,895,332

(a) Tasmanian transport services are under the separate control of the Transport Commission.
 (b) Excludes £800,000 contribution from Consolidated Revenue Fund in respect of losses on country developmental railways.
 (c) Includes electric tramways operated by the Railways Department.
 (d) Includes £120,000, portion of Commonwealth Grant paid direct to Railways.
 (e) Tramway contribution to Consolidated Revenue.
 (f) Includes Harbour Trust Fund contribution £135,280.
 (g) Road Transport and Traffic Fund.

(b) 1938-39 and 1941-42 to 1944-45. Particulars of the revenue from business undertakings are given below :—

STATE REVENUE FROM BUSINESS UNDERTAKINGS. (a)

Source.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£'000.	£'000.	£'000.	£'000.	£'000.
Railways, Tramways and Omnibuses	48,154	67,015	84,589	83,580	77,071
Harbour Services	2,357	2,248	2,325	2,409	2,647
Water Supply, Sewerage, Irrigation and Drainage	2,543	2,815	3,095	3,063	3,176
Other	2,625	2,713	2,748	2,890	3,001
Total	55,679	74,791	92,757	91,942	85,895

(a) See notes to previous table.

iv) *Lands.* The revenue from the sale and rental of Crown lands has, with few exceptions, been treated from the earliest times as forming part of the Consolidated Revenue Funds, and has been applied to meet ordinary expenses. The following table gives the revenue from sales and rentals of Crown lands for the year 1944-45 :—

STATE LAND REVENUE, 1944-45.

Source.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
	£	£	£	£	£	£	£
Sales ..	32,274	61,883	..	21,363	6,242	2,899	124,661
Conditional Purchases ..	503,449	..	..	9,921	76,810	3,978	594,158
Rentals ..	871,958	145,759	1,079,036	210,187	117,673	26,979	2,451,592
Forestry ..	224,108	696,802	484,669	..	137,388	55,044	1,598,011
Other ..	22,454	33,234	75,805	7	10,429	2,394	144,323
Total ..	1,654,243	937,678	1,639,510	241,478	348,542	91,294	4,912,745

(v) *Commonwealth Payments.* Commonwealth Payments to the States represent a considerable proportion of the States' Revenue. In 1944-45 the total amount (excluding sundry minor items) paid to the Consolidated Revenue Funds of the States was £43,863,015 (26 per cent.). This was made up of the contribution towards interest on States' debts under the Financial Agreement, £7,584,912, Special grants to the States of South Australia, Western Australia and Tasmania, £2,846,000, and Income and Entertainments Tax Reimbursements, £33,432,103. The latter item has been included under State taxation above as it is paid to the States as a reimbursement for vacating the fields of income and entertainments taxation.

In addition to these the States receive a number of other payments which are paid to Trust Funds. The main items in this class are the contribution towards the sinking fund on States' debts (£1,682,869 in 1944-45) paid to the National Debt Sinking Fund and grants for Federal Aid Roads and Works (£2,200,902 in 1944-45) paid to State Trust Funds.

(vi) *Interest and Miscellaneous.* In addition to the foregoing, there are in each State several miscellaneous sources of revenue, including such items as interest, fines, fees, etc. In 1944-45 interest, mainly from loans to local governing bodies and on public account balances, supplied £4,582,557, whilst "Miscellaneous" revenue which includes fines of the courts and fees for services amounted to £13,487,167.

Division II.—Expenditure.

i. *General.*—The principal heads of State expenditure from Consolidated Revenue Funds are :—

- (a) Interest, sinking fund and exchange charges in connexion with public debt; (b) Working expenses of railways, tramways and other business and industrial undertakings; (c) Education; (d) Health and charitable expenditure; (e) Justice; (f) Police; (g) Penal establishments; and (h) all other expenditure, under which heading is included Public Works, Lands and Surveys, Agriculture and Forestry, Legislative and General Administration, Pensions and Miscellaneous.

In earlier years the working expenses of Railways and Tramways were the most important item of State Governmental expenditure, but, for a period prior to 1941-42, Public Debt charges were the heaviest item. During the last four years, however, Railways and Tramways expenditure has again taken the major place. In the year 1944-45 the working expenses of the Railways and Tramways and Omnibuses were 37.4 per cent. of the total expenditure from the State Consolidated Revenue Funds; next in importance were Public Debt Charges, 27.5 per cent.; Education, 9.3 per cent.; Charitable, Public Health and Hospitals, 7.1 per cent.; and Law, Order and Public Safety, 4.2 per cent.

2. Total Expenditure.—The total expenditure from the Consolidated Revenue Funds of the several States and the expenditure per head of population during each of the five years 1938-39 and 1941-42 to 1944-45 are given in the table hereunder:—

STATE EXPENDITURE : CONSOLIDATED REVENUE FUNDS.

Year.	N.S.W. (a)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania. (a)	Total.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1938-39	54,169	27,773	19,316	12,701	11,170	3,641	128,770
1941-42	64,980	32,320	23,590	13,712	11,939	3,357	149,007
1942-43	70,392	35,736	29,182	14,960	13,127	3,400	166,797
1943-44	71,288	34,924	28,854	15,529	13,551	3,469	167,615
1944-45	73,245	34,924	25,878	16,113	13,949	3,676	167,785

PER HEAD OF POPULATION.(b)

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1938-39	19 16 3	14 16 4	19 3 8	21 7 4	24 2 10	15 7 4	18 12 9
1941-42	23 3 9	16 10 11	22 14 8	22 11 7	25 1 10	13 19 10	21 1 3
1942-43	24 17 4	18 2 7	27 19 7	24 8 2	27 6 9	14 1 8	23 4 8
1943-44	24 19 5	17 11 2	27 5 5	25 2 1	28 1 9	14 4 3	23 2 7
1944-45	25 7 10	17 8 3	24 3 1	25 15 4	28 11 6	14 18 2	22 18 4

(a) See § 1 par. 2, page 707.

(b) Based on mean population of each financial year.

3. Details of Expenditure.—(i) 1944-45.—The following table shows the total expenditure and expenditure per head for each of the principal items:—

STATE EXPENDITURE : DETAILS, 1944-45.

Particulars.	N.S.W. (a)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania. (a)	Total.
	£	£	£	£	£	£	£
Public debt (interest, sinking fund, exchange, etc.)	19,662,877	8,431,884	6,616,559	5,341,447	4,644,348	1,332,799	46,029,824
Railways, Tramways and Omnibuses (working expenses)	30,061,180	12,426,760	11,227,362	4,881,055	4,045,201	5,134	62,646,692
Harbours and Rivers, etc.	472,392	79,844	..	254,571	99,498	..	906,305
Water Supply, Sewerage, Irrigation and Drainage	..	805,898	..	584,426	391,938	..	1,782,262
Other Business and Industrial Undertakings	546,802	693,008	429	122,061	596,918	(b) 258,879	2,218,097
Education	6,645,416	3,976,046	2,134,532	1,330,874	1,018,446	589,022	15,694,336
Health and charitable	5,370,812	2,709,777	1,637,226	953,203	722,420	433,470	11,894,024
Justice	913,353	310,505	224,045	86,774	89,107	40,961	1,373,188
Police	1,612,105	1,094,933	865,943	356,721	290,244	152,270	4,372,216
Penal establishments	505,537	161,400	69,328	63,188	51,850	28,777	880,089
Public safety	172,440	222,575	114,284	11,872	24,391	6,207	551,769
All other expenditure	7,575,848	3,951,457	2,988,351	2,124,826	1,974,970	822,159	19,437,611
Total	73,245,272	34,924,087	25,878,059	16,113,018	13,949,340	3,675,537	167,785,313

(a) See § 1, par. 2, page 707.

(b) Includes £258,668 Transport Commission loss.

STATE EXPENDITURE: DETAILS, 1944-45—continued.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
PER HEAD OF POPULATION.(a)							
Public debt (interest, sinking fund, exchange, etc.) ..	£ s. d. 6 16 4	£ s. d. 4 4 0	£ s. d. 6 3 6	£ s. d. 8 10 10	£ s. d. 9 10 3	£ s. d. 5 8 1	£ s. d. 6 5 8
Railways, Tramways and Omnibuses (working expenses)	10 8 5	6 3 11	10 9 7	7 16 1	8 5 9	0 0 5	8 11 1
Harbours and Rivers, etc. ..	0 3 3	0 0 9	..	0 8 2	0 4 0	..	0 2 6
Water Supply, Sewerage, Irrigation and Drainage ..	..	0 8 1	..	0 18 8	0 16 1	..	0 4 11
Other Business and Industrial Undertakings ..	0 3 9	0 6 11	0 0 1	0 3 11	1 4 6	1 1 0	0 6 1
Education ..	2 6 1	1 19 8	1 19 10	2 2 7	2 1 9	2 7 10	2 2 10
Health and charitable ..	1 17 4	1 7 8	1 10 7	1 10 6	1 9 7	1 15 2	1 12 6
Justice ..	0 4 3	0 3 1	0 4 2	0 2 10	0 3 8	0 3 10	0 3 9
Police ..	0 11 3	0 10 11	0 16 2	0 11 5	0 11 11	0 12 4	0 12 0
Penal establishments	0 3 6	0 1 7	0 1 3	0 2 0	0 2 1	0 2 4	0 2 5
Public safety ..	0 1 2	0 2 3	0 2 2	0 0 5	0 1 0	0 0 6	0 1 6
All other expenditure	2 12 6	1 19 5	2 15 9	3 7 11	4 0 11	3 6 8	2 13 1
Total ..	25 7 10	17 8 3	24 3 1	25 15 4	28 11 6	14 18 2	22 18 4

(a) Based on mean population of financial year.

(ii) 1938-39 and 1941-42 to 1944-45.—Expenditure for the years 1938-39 and 1941-42 to 1944-45 are shown in the following table:—

STATE EXPENDITURE.

Particulars.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£'000.	£'000.	£'000.	£'000.	£'000.
Public debt (interest, sinking fund, exchange, etc.) ..	40,158	42,769	41,768	42,144	46,030
Railways, Tramways and Omnibuses (working expenses) ..	38,541	52,362	65,254	67,427	62,647
Harbours and Rivers, etc. ..	693	750	816	893	906
Water Supply, Sewerage, Irrigation and Drainage ..	1,076	1,220	1,382	1,511	1,782
Other Business and Industrial Undertakings ..	1,646	1,766	2,139	2,176	2,218
Education ..	12,639	13,417	13,778	14,657	15,694
Health and Charitable ..	15,307	12,014	11,539	11,650	11,893
Justice ..	1,323	1,306	1,296	1,329	1,373
Police ..	3,733	3,693	4,130	4,338	4,372
Penal establishments ..	646	704	777	815	880
Public safety ..	297	1,832	2,415	1,017	552
All other expenditure ..	12,711	18,074	21,503	19,658	19,438
Total ..	128,770	149,907	166,797	167,615	167,785

Division III.—Surplus Revenue.

The following table shows for each of the years 1938-39 and 1941-42 to 1944-45 the amount and amount per head of the surplus or deficit of each State :—

STATE SURPLUS REVENUE.

Year.	N.S.W. (a)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania. (a)	Total.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1938-39..	-2,459	-787	14	-397	-221	-26	-3,876
1941-42..	886	792	64	1,290	1	2	3,035
1942-43..	1,142	754	102	232	25	-110	2,145
1943-44..	1,183	620	114	16	38	30	2,001
1944-45..	968	349	569	(a)-553	5	-19	1,319

PER HEAD OF POPULATION.(a)

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1938-39..	-0 18 0	-0 8 5	0 0 3	-0 13 4	-0 9 6	-0 2 2	-0 11 3
1941-42..	0 6 4	0 8 1	0 1 3	2 2 6	0 0 0	0 0 2	0 8 6
1942-43..	0 8 1	0 7 8	0 2 0	0 7 7	0 1 0	-0 9 1	0 6 0
1943-44..	0 8 3	0 6 3	0 2 1	0 0 6	0 1 7	0 2 6	0 5 6
1944-45..	0 6 8	0 3 6	0 10 7	-0 17 8	0 0 2	-0 1 7	0 3 7

NOTE.—Minus sign (—) indicates deficit.

(a) See § 1, para. 2, page 707.

(b) Based on mean population of each financial year.

§ 3. State Trust Funds.

1. *Nature*.—In addition to the moneys received as revenue and paid to the credit of Consolidated Revenue Funds, considerable sums are held by the State Governments in trust for various purposes. Municipal sinking funds placed in the hands of the Governments are paid to the credit of the appropriate Trust Funds. In all the States, except New South Wales, where the practice is confined to those companies transacting workers' compensation insurance, life assurance companies operating are required to deposit a substantial sum in cash or approved securities with the Government, and these deposits help to swell the trust funds. Various other deposits accounts, superannuation funds, suspense accounts, etc., are also included.

2. *Extent*.—The balances of trust funds held on 30th June, 1945 were as follows :—

STATE TRUST FUND BALANCES, 30th JUNE, 1945.

Particulars.	N.S.W. (a)	Victoria.	Q'land. (b)	S. Aust.	W. Aust.	Tas.	Total.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
Amount of trust funds	27,810	19,915	30,837	2,097	7,335	1,105	89,099

(a) Special Deposits Account and Special Accounts.

(b) Revised since previous issue to include other than cash balances.

§ 4. State Loan Funds.

Division I.—Loan Expenditure.

1. *General*.—As far back as 1842 revenue collections were supplemented by borrowed moneys, the earliest loan being raised by New South Wales for the purpose of assisting immigration, at rates of interest varying from 2½d. to 5½d. per £100 per diem, or

approximately from $4\frac{1}{2}$ per cent. to 8 per cent. per annum. Australian public borrowing, however, is mainly due to the fact that the State Governments, in addition to ordinary administrative duties, undertake functions which in other countries are usually entrusted to local authorities or left to private enterprise. Foremost amongst these are the construction and control of the railway systems. Loan moneys have also been largely used for improvements to harbours and rivers, and for the construction of roads, water supply and sewerage works. The State loan expenditure and public debt thus differ very materially from those of most European countries, and from those of the Commonwealth, where such expenditure was very largely incurred for defence or war purposes. As shown above, the State debts consist chiefly of moneys raised and expended with the object of assisting the development of the resources of the country, and are to a very large extent represented by tangible assets.

Statements relating to Loan Expenditure are given below for both "gross" and "net" expenditure. The gross expenditure represents the amounts disbursed during each year whereas the net expenditure represents the gross expenditure less any credits to the Loan Fund during the year on account of repayments of advances to local governing bodies, settlers, etc., the sale of assets, and transfers from other funds. Such moneys are credited to the Loan Fund in the year of repayment irrespective of when the advance was made.

2. Details of Loan Expenditure.—(i) *Gross Loan Expenditure, 1944-45.* Particulars of the gross loan expenditure on Works, Services, etc., for the year 1944-45 are given in the following table:—

STATE GROSS LOAN EXPENDITURE ON WORKS, SERVICES, ETC., 1944-45.

Heads of Expenditure.	N.S.W.	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
	£	£	£	£	£	£	£
Public Works and Services—							
Railways	1,600,000	496,294	500,719	436,949	72,935	358,043	3,464,940
Tramways and Omnibuses ..	523	..	..	..	6,269	..	6,792
Roads	6,598	9,443	208,994	..	..	..	..
Bridges	164,834	..	62,778	57,102	34,187	32,416	576,352
Harbours and Rivers .. ..	..	..	..	..	..	..	..
Lights and Lighthouses ..	..	..	..	..	..	..	..
Water Supply	72,379	315,729	37,500	372,438	71,181	..	945,420
Sewerage .. ..	..	..	..	55,476	10,717	..	..
Electricity Supply	137,151	..	..	..	15,493	358,285	510,929
Public Buildings	285,711	819,607	348,357	143,170	121,218	99,240	1,817,303
Loans and Grants to							
Local Bodies	24,116	..	179,807	..	..	..	203,923
Unemployment Relief							
Works .. ..	..	3,891	..	..	..	1,361	5,252
Housing	618,477	750,000	150,176	652,534	120,000	125,806	2,416,993
Other Public Works, etc.	38,300	..	..	231,207	2,984	122,548	396,039
Primary Production—							
Soldier Settlement	(b) 11	..	4,002	6,979	1,207	63,489	121,467
Land for Settlement .. ..	..	..	18,373	974	..	20,132	..
Advances to Settlers .. ..	..	717,217	540	108,534	..	149,737	976,028
Water Conservation .. ..	..	..	..	278	14,005	..	..
Irrigation and Drainage ..	181,950	..	4,342	67,930	12,260	..	280,765
Rabbit-proof Fencing .. ..	..	79	..	69	..	..	148
Agriculture(c)	1,932	..	500	..	4,706	..	7,138
Agricultural Bank .. ..	..	..	Or.	500	..	..	Or.
Forestry .. ..	..	480,600	35,450	263,273	..	..	779,323
Mines and Mineral Resources	6,765	437	9,860	100,000	146,880	..	263,942
Other .. ..	..	45	..	..	31,822	1,000	32,867
Other Purposes .. ..	..	90,000	..	112,570	82,000	..	284,570
Total Public Works, Services, &c., Expenditure	3,138,747	3,683,342	1,560,898	2,620,483	747,864	1,338,357	13,089,691
Per Head of Population	£1 1 9	£1 10 9	£1 9 2	£4 3 10	£1 10 8	£5 8 7	£1 15 9

(a) Expenditure from Loan Funds and on account of Loans; includes expenditure from Loan Funds, from Treasurer's Advance Account, and from State Loans Repayment Fund. (b) Includes Rabbit-proof Fencing Advances. (c) Includes Grain Elevators, New South Wales and Victoria.

(ii) *Net Loan Expenditure, 1944-45.* For the year ended 30th June, 1945, State net loan expenditure on Works, Services, etc., was as follows:—

STATE NET LOAN EXPENDITURE ON WORKS, SERVICES, ETC., 1944-45.

Heads of Expenditure.	N.S.W.	Victoria. (a)	Q'land.	S. Aust. (b)	W. Aust.	Tasmania.	Total.
	£	£	£	£	£	£	£
Public Works and Services—							
Railways	1,185,622	56,448	472,233	408,751	69,056	143,087	2,335,197
Tramways and Omnibuses ..	Cr. 307,848			Cr. 50,000	929		Cr. 356,919
Roads		Cr. 26,744	85,062	Cr. 17,000			
Bridges		5,696					
Harbours and Rivers	115,337	Cr. 3,532	62,778	30,747	30,519	29,417	268,873
Lights and Lighthouses ..							
Water Supply		289,624	37,500	333,345	63,877		829,328
Sewerage	54,208			55,682	Cr. 4,908		
Electricity Supply	115,019			5,381	239,762		360,162
Public Buildings	283,150	815,304	329,616	137,840	120,395	96,573	1,782,878
Loans and Grants to							
Local Bodies	16,575	Cr. 4,029	Cr. 341,142	Cr. 1,552	Cr. 4,363	Cr. 23,166	Cr. 357,677
Unemployment Relief							
Works	Cr. 375,833	Cr. 175,573				Cr. 115	Cr. 551,521
Housing	540,320	747,860	59,418	324,821	117,026	34,627	1,824,072
Other Public Works, etc.	25,751		Cr. 4,507	162,033	2,984	89,217	275,478
Primary Production—							
Soldier Settlement		Cr. 713,271	Cr. 55,972	Cr. 112,656	Cr. 94,674	Cr. 97,746	Cr. 1,555,122
Land for Settlement			Cr. 904	Cr. 28,446	Cr. 95	Cr. 26,265	Cr. 777,014
Advances to Settlers		711,343	Cr. 19,811	16,757	Cr. 445	Cr. 30,230	
Water Conservation			Cr. 12,039	Cr. 61,591	3,776		128,352
Irrigation and Drainage ..	130,440			56,575	12,091		
Rabbit-proof Fencing		Cr. 14,039	Cr. 16,806	Cr. 10,485			Cr. 41,330
Agriculture (e)	1,932		11		4,684		6,627
Agricultural Bank			Cr. 45,721				Cr. 45,721
Forestry		322,148	35,436	Cr. 24,753			332,831
Mines and Mineral							
Resources	6,640	Cr. 4,448	6,393	100,000	137,868		246,453
Other		Cr. 12,720	Cr. 59,534	Cr. 1,459	31,821	Cr. 7,104	Cr. 48,995
Other Purposes		89,500	Cr. 100,101	Cr. 336,170	50,975		Cr. 295,792
Total Public Works, Services, etc., Expenditure	1,722,813	2,083,567	431,010	982,431	546,901	418,057	6,214,788
Per Head of Population	£0 11 11	£1 0 0	£0 8 1	£1 11	£1 2 5	£1 16 4	£0 17 0

(a) Expenditure from Loan Funds and on account of Loans; includes expenditure from Loan Funds, from Treasurer's Advance Account, and from State Loans Repayment Fund. (b) Credits arising from the cancellation of securities redeemed from Sinking Fund are not included. (c) Loans to Metropolitan Tramways Trust. (d) Includes Rabbit-proof Fencing advances. (e) Includes Grain Elevators, New South Wales and Victoria.

3. *Net Loan Expenditure on Works, Services, etc., 1938-39 and 1941-42 to 1944-45.*—The following table gives the works net loan expenditure during each of the years 1938-39 and 1941-42 to 1944-45:—

STATE NET LOAN EXPENDITURE ON WORKS, SERVICES, ETC.

Year.	N.S.W.	Victoria. (a)	Q'land.	S. Aust. (a)	W. Aust.	Tasmania.	Total.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1938-39	5,408	2,290	2,041	1,226	1,636	577	13,178
1941-42	3,158	1,098	1,584	1,230	680	715	8,465
1942-43	1,901	201	455	578	377	575	4,087
1943-44	1,411	128	345	476	106	499	2,905
1944-45	1,723	2,083	431	983	547	448	6,215

PER HEAD OF POPULATION.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1938-39	1 19 7	1 4 5	2 0 7	2 1 3	3 10 9	2 8 8	1 18 2
1941-42	1 2 6	0 11 3	1 10 6	2 0 6	1 8 7	2 19 7	1 3 10
1942-43	0 13 5	0 2 0	0 8 9	0 18 10	0 15 8	2 7 8	0 11 5
1943-44	0 9 11	0 1 3	0 6 6	0 15 5	0 4 5	2 0 10	0 8 2
1944-45	0 11 11	1 0 9	0 8 1	1 11 5	1 2 5	1 16 4	0 17 0

(a) See footnotes (a) and (b) to previous table.

The three tables in this paragraph and paragraph 2 do not include particulars of expenditure on loan discounts and flotations, the funding of deficits, the retirement of treasury bills, and similar items of a nature other than works, services, etc. The aggregate

net expenditure on those items to 30th June, 1945, is shown in paragraph 4 following. Summaries of the gross and net expenditure and repayments for the years 1942-43 to 1944-45 are shown in paragraph 5 following.

4. **Total Net Loan Expenditure to 30th June, 1945.**—The total net loan expenditure including revenue deficits, etc., of the States from the initiation of borrowing to 30th June, 1945 amounted to £1,059,503,235. The purposes for which this sum was expended are shown in the following table:—

TOTAL STATE NET LOAN EXPENDITURE TO 30th JUNE, 1945.

Heads of Expenditure.	N.S.W.	Victoria.(a)	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
	£	£	£	£	£	£	£
Public Works and Services—							
Railways..	159,848,997	79,759,176	67,285,258	36,662,035	25,797,578	7,917,549	377,270,593
Tramways and Omnibuses ..	8,068,576	..	..	(b) 3,523,990	1,360,258	..	12,952,824
Roads and Bridges	20,813,012	12,655,400	5,544,743	3,825,145	3,183,327	..	7,326,268
Harbours, Rivers, Lighthouses ..	22,479,673	1,408,305	3,566,358	8,577,956	7,544,780	..	96,924,967
Water Supply ..	41,039,202	32,113,599	979,741	19,190,754	10,833,757	..	112,436,594
Sewerage ..	..	217,784	..	3,931,532	4,128,225	..	..
Electricity Supply ..	2,679,533	17,839,227	..	..	1,930,108	8,069,909	30,518,777
Public Buildings ..	18,458,701	9,166,125	7,900,052	4,093,669	2,987,811	3,106,997	45,713,355
Loans and Grants to Local Bodies ..	1,748,378	1,626,377	19,238,770	15,421	87,101	432,402	23,148,449
Unemployment Relief Works ..	16,634,452	13,146,725	..	..	(c) ..	332,529	30,113,706
Housing ..	2,428,227	1,940,000	3,653,968	5,795,062	912,940	579,984	15,310,181
Commonwealth Services ..	3,964,925	149,323	524,388	1,283,387	332,293	500,754	6,755,070
Other Public Works and Services (d)	4,007,607	722,989	2,918,974	1,116,024	1,856,405	2,324,683	12,946,682
Primary Production—							
Closer Settlement ..	8,475,214	..	(e) 914,272	..	8,531,351	356,574	..
Land for Settlement	..	41,570,934	3,367,322	1,416,031	324,662	..	86,476,662
Soldier Settlement ..	f 3,802,688	..	987,940	8,040,017	6,610,451	2,080,206	..
Advances to Settlers	..	3,208,107	244,974	1,791,614	2,061,560	184,535	7,490,790
Water Conservation	..	..	..	4,233,122	1,365,411	..	..
Irrigation and Drainage ..	19,540,116	..	1,954,372	4,973,842	2,536,624	..	34,603,487
Rabbit Proof Fencing ..	..	879,851	225,451	136,048	341,765	..	1,583,115
Agriculture(g)	7,242,913	1,150,682	49,999	..	3,835,370	..	12,278,964
Agricultural Bank ..	..	..	1,622,241	..	5,878,695	..	7,500,936
Forestry ..	..	2,442,091	1,391,755	1,227,134	1,041,918	..	6,102,898
Mines and Mineral Resources ..	592,711	591,390	2,068,933	100,000	3,261,914	..	6,614,948
Other ..	..	1,097,307	2,607,564	765,977	120,382	19,177	4,610,407
Other Purposes ..	89,283	301,627	123,802	(h) 3,706,742	3,663,283	..	7,884,737
Total Public Works, Services, &c., Expenditure ..	341,913,208	221,987,019	127,170,877	114,405,502	100,529,969	33,231,567	939,238,142
Other than Works, &c.—							
Discounts and Flotation Expenses ..	19,694,527	5,893,966	7,179,568	1,276,945	4,165,657	1,596,521	39,807,184
Revenue and General Cash Deficits ..	38,990,007	9,118,682	5,826,271	8,669,234	12,115,087	1,581,478	76,300,759
Treasury Bills Retired ..	..	..	2,857,150	..	..	..	2,857,150
Other ..	..	..	(i) 1,300,000	..	..	..	1,300,000
Grand Total ..	400,597,742	236,999,667	144,333,866	124,351,681	116,810,713	36,409,566	1,059,503,235

(a) Aggregate Gross Loan Expenditure. (b) Loans to Metropolitan Tramways Trust. (c) Not available separately. Distributed under various particular headings. (d) Includes Industrial Undertakings and Immigration. (e) Under Prickly Pear Land Act. (f) Includes advances for Rabbit-proof Fencing. (g) Includes Grain Elevators, New South Wales and Victoria. (h) Includes £2,175,000 State Bank. (i) Contribution to Sinking Fund.

The figures in the foregoing table show the amounts actually expended from loan fund, and differ from those given later in the statements relating to the public debt, which represent the amount of loans still outstanding. The statement above includes all expenditure, whether the loans have been repaid or are still in existence. As in the earlier tables on net loan expenditure, allowance has been made, however, for credits on account of repayments of advances to local government bodies, settlers, etc., the sale

of assets, and transfers from other funds. In the public debt statement, on the other hand, loans repaid are not included, and in the case of loans still outstanding, each is shown according to the amount repayable at maturity, and not according to the amount originally available for expenditure.

5. Total Loan Expenditure, 1942-43 to 1944-45.—The following table gives particulars, in summary form, of the total loan expenditure in each State during each of the years 1942-43 to 1944-45.

STATE LOAN EXPENDITURE, SUMMARY.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
1942-43.							
Works and Services—	£	£	£	£	£	£	£
Gross Expenditure ..	2,789,311	1,036,087	2,056,843	2,463,384	656,916	1,500,462	10,503,003
Net Expenditure ..	1,901,522	200,631	454,571	578,304	376,892	575,114	4,087,094
Repayments ..	887,789	835,456	1,602,272	1,885,020	280,024	925,348	6,415,909
Other than Works, etc. (a)—							
Gross Expenditure ..	312,611	..	3,525	45,058	74,041	..	435,235
Net Expenditure ..	Cr2,987,389	..	..	Cr. 537,288	48,275	Cr. 74,110	Cr3,550,512
Repayments ..	63,300,000	..	3,525	(c) 582,346	(d) 25,766	74,110	3,985,747
Total Loan Expenditure—							
Gross Expenditure ..	3,101,922	1,036,087	2,060,368	2,508,442	730,957	1,500,462	10,938,238
Net Expenditure ..	Cr1,085,867	200,631	454,571	41,076	425,167	501,004	3,503,582
Repayments ..	4,187,789	835,456	1,605,797	2,467,366	305,790	999,458	10,401,656
1943-44.							
Works and Services—	£	£	£	£	£	£	£
Gross Expenditure ..	3,029,172	1,084,589	1,773,352	2,104,369	361,998	1,359,837	9,713,317
Net Expenditure ..	1,411,539	128,028	344,802	475,813	105,845	498,651	2,964,678
Repayments ..	1,617,633	956,561	1,428,550	1,628,556	256,153	861,186	6,748,639
Other than Works, etc. (a)—							
Gross Expenditure ..	34,869	..	112	211	373	1,249,105	1,284,670
Net Expenditure ..	Cr6,465,131	..	..	..	Cr. 37,648	1,176,261	Cr3,326,518
Repayments ..	66,500,000	..	112	211	(e) 38,021	72,844	6,611,188
Total Loan Expenditure—							
Gross ..	3,064,041	1,084,589	1,773,464	2,104,580	362,371	2,608,942	10,997,987
Net ..	Cr5,053,592	128,028	344,802	475,813	68,197	1,674,912	Cr2,361,840
Repayments ..	8,117,633	956,561	1,428,662	1,628,767	294,174	934,030	13,359,827
1944-45.							
Works and Services—	£	£	£	£	£	£	£
Gross Expenditure ..	3,138,747	3,683,342	1,560,898	2,620,483	747,864	1,338,357	13,089,601
Net Expenditure ..	1,722,813	2,083,567	431,010	982,439	546,902	448,057	6,214,788
Repayments ..	1,415,934	1,599,775	1,129,888	1,638,044	200,962	890,300	6,874,903
Other than Works, etc. (a)—							
Gross Expenditure—							
Discounts and Flotation Expenses ..	1,532,906	..	7,715	9,634	2,936	..	1,553,191
Revenue and General Cash Deficits ..	5,960,000	4,255,000	..	..	73,025	455,000	10,743,025
Total ..	7,492,906	4,255,000	7,715	9,634	75,961	455,000	12,296,216
Net Expenditure—							
Discounts and Flotation Expenses ..	1,532,906	..	Cr. 3,974	5,500	Cr. 3,177	..	1,531,255
Revenue and General Cash Deficits ..	5,960,000	4,255,000	..	..	73,025	455,000	10,743,025
Total ..	7,492,906	4,255,000	Cr. 3,974	5,500	69,848	455,000	12,274,280
Repayments ..	..	..	11,689	4,134	6,113	..	21,936
Total Loan Expenditure—							
Gross ..	10,631,653	7,938,312	1,568,613	2,630,117	823,825	1,793,357	25,385,907
Net ..	9,215,719	6,338,507	427,030	987,939	619,750	903,957	18,489,068
Repayments ..	1,415,934	1,599,775	1,141,577	1,642,178	207,075	890,300	6,890,839

(a) Includes exchange, discounts and flotation expenses, revenue and general cash deficits. (b) Repayment of deficiency Treasury Bills from surplus cash resources. (c) From Revenue surplus 1941-42. (d) Includes £24,436 from Revenue surplus 1942-43 and £1,330 from Revenue. (e) From Revenue surplus 1943-44.

Division II.—State Public Debts.

1. **General.**—The first government loan raised in Australia was obtained by New South Wales in 1842. This and nine other loans prior to 1855 were all raised locally. In 1855 New South Wales approached the London market for the first instalment of a 5 per cent. loan for £683,300. Victoria first appeared as a borrower in 1854, and made its first appearance on the London market in 1859. The first public loans were raised by the other States in the following years:—Queensland 1861, South Australia 1856, Western Australia 1845, and Tasmania 1867.

In the Public Debt tables which follow, the units of currency are, for debts maturing and interest payable in Australia, £ Australian; in London, £ sterling; in New York, £ sterling. The New York debt is payable in dollars, but for the purposes of the tables dollars have been arbitrarily converted to £ sterling at the rate of \$4.8665 to £ stg. 1.

2. **State Debts, 1938–39 and 1941–42 to 1944–45.**—The table hereunder shows the State public debts and the amounts outstanding per head of population at 30th June, 1939, and 1942 to 1945 inclusive.

Under the Financial Agreement the Commonwealth Government on 1st July, 1929 assumed the liabilities of the States to bondholders in respect of the debts of the States existing at 1st July, 1929, and taken over by the Commonwealth. The following figures represent the total “face” or “book” values of the debts of the States leaving out of account currency changes since the loans were floated:—

STATE PUBLIC DEBTS.

30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
	£	£	£	£	£	£	£
1939..	359,843,990	179,698,118	127,503,251	108,887,092	95,472,600	26,366,990	897,772,041
1942..	366,502,819	177,716,484	131,171,752	109,190,225	97,359,244	28,737,388	910,677,912
1943..	360,239,090	175,934,652	128,568,485	108,429,169	96,988,206	28,679,117	898,838,719
1944..	351,971,024	174,762,413	129,179,046	108,305,240	96,478,295	30,063,802	890,759,820
1945..	355,050,980	179,405,191	131,433,390	108,870,912	95,894,885	30,322,355	900,977,713

PER HEAD OF POPULATION. (a)

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1939..	131 0 0	95 10 3	125 8 8	182 15 4	205 2 7	111 8 4	129 6 3
1942..	129 11 4	90 5 3	126 7 7	179 16 3	206 19 6	119 15 5	127 6 3
1943..	126 15 10	86 16 10	122 5 1	176 3 5	202 4 4	118 6 10	124 13 1
1944..	122 11 11	87 9 7	121 4 11	174 2 6	198 15 2	122 9 10	122 4 10
1945..	122 9 4	89 2 0	121 17 1	173 2 1	195 12 11	122 4 9	122 8 10

(a) Based on population at 30th June in each year.

The public debt of the whole of the States increased during the period under review by £3.2 million. The debt per head of population decreased, however, during the period by £6 17s. 5d. to £122 8s. 10d. per head. During 1944–45 the total State debt increased by more than £10.2 million. In some States certain public utilities such as Tramways, Water Supply and Sewerage, and Harbour Services, etc., are controlled by Boards or Trusts, which, in addition to receiving advances from the Central Government, raise loans by public borrowing on their own behalf, while in other States these services are controlled by the Central Governments. Comparison of the debts of the States is therefore difficult, but on page 733 figures showing the aggregate debts of the States, including these local and semi-governmental bodies, are given for the years 1939–40 and 1940–41. This comparison cannot at present be brought up to date, as local and semi-governmental debt statistics are not available for years later than 1940–41.

3. **Place of Flotation of Loans.**—Early loans, usually for comparatively small amounts, were raised locally, but, with the increasing demand for loan funds and the more favourable terms offering in the London market, the practice of raising loans in London came into vogue, and for many years local flotations, except for short terms or small amounts, were comparatively infrequent. In more recent years, however, the accumulating stocks of money in Australia available for investment led to the placing of various redemption and other loans locally, with very satisfactory results. Loans have also been placed in New York on account of all States. The following table gives particulars of loans outstanding at 30th June, 1945, according to the place of flotation:—

STATE PUBLIC DEBTS AT 30th JUNE, 1945 : PLACE OF FLOTATION OF LOANS.

State.	Maturing Overseas.			Maturing in Australia.	Grand Total.
	London.	New York.	Total Overseas.		
	£ Stg.	£ Stg.	£ Stg.	£ Aust.	£
New South Wales	145,922,107	11,562,211	157,484,318	197,566,662	355,050,980
Victoria ..	61,335,687	4,498,878	65,834,565	113,570,626	179,405,191
Queensland ..	58,819,071	5,270,944	64,090,015	67,343,375	131,433,390
South Australia ..	42,817,306	1,733,468	44,550,774	64,320,138	108,870,912
Western Australia	43,741,773	2,015,436	45,757,209	50,137,676	95,894,885
Tasmania ..	8,755,687	227,796	8,983,483	21,338,872	30,322,355
Total ..	361,391,631	25,308,733	386,700,364	514,277,349	900,977,713

PER HEAD OF POPULATION.

	£ s. d. Stg.	£ s. d. Stg.	£ s. d. Stg.	£ s. d. Aust.	£ s. d.
New South Wales	50 6 8	3 19 9	54 6 5	68 2 11	122 9 4
Victoria ..	30 9 3	2 4 8	32 13 11	56 8 1	89 2 0
Queensland ..	54 10 8	4 17 9	59 8 5	62 8 8	121 17 1
South Australia ..	68 1 7	2 15 2	70 16 9	102 5 4	173 2 1
Western Australia	89 4 10	4 2 3	93 7 1	102 5 10	195 12 11
Tasmania ..	35 5 11	0 18 5	36 4 4	86 0 5	122 4 9
Total ..	49 2 3	3 8 9	52 11 0	69 17 10	122 8 10

Particulars of the aggregate debts of the States for the five years 1938-39 and 1941-42 to 1944-45, showing the amounts which will mature overseas and in Australia, will be found on page 731.

4. *Interest.*—(i) *Amounts Payable and Average Rate.* The highest rate of interest paid for the earliest State loans was 5½d. per £100 per diem, or, approximately, 8 per cent. per annum. At 30th June, 1945 the rates varied from 6 per cent. to 1 per cent. The average rate payable on the aggregate indebtedness was £3 10s. 11d. per cent. For the separate States the average varies, being lowest for Tasmania (£3 5s. 4d.) and highest for Queensland (£3 14s. 11d.). The following table gives particulars of the amount of interest payable, together with the average rate of interest payable at 30th June, 1945, with separate information for London, New York and Australian maturities.

STATE PUBLIC DEBTS AT 30th JUNE, 1945 : INTEREST PAYABLE.

WHERE PAYABLE.

State.	Overseas.			Australia.	Grand Total.
	London.	New York.	Total.		
	£ Stg.	£ Stg.	£ Stg.	£ Aust.	£
New South Wales	5,560,820	558,647	6,119,467	6,148,118	12,267,585
Victoria ..	2,294,841	221,140	2,515,981	3,840,674	6,356,655
Queensland ..	2,374,424	278,971	2,653,395	2,270,747	4,924,142
South Australia	1,678,210	86,674	1,764,884	2,170,443	3,935,327
Western Australia	1,688,317	100,771	1,789,088	1,663,911	3,452,999
Tasmania ..	331,062	11,390	342,452	648,290	990,742
Total ..	13,927,674	1,257,593	15,185,267	16,742,183	31,927,450

AVERAGE RATE PAYABLE.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
New South Wales	3 16 2	4 16 8	3 17 9	3 2 3	3 9 1
Victoria ..	3 14 10	4 18 4	3 16 5	3 7 8	3 10 10
Queensland ..	4 0 9	5 5 10	4 2 10	3 7 5	3 14 11
South Australia	3 18 5	5 0 0	3 19 3	3 7 6	3 12 4
Western Australia	3 17 2	5 0 0	3 18 2	3 6 5	3 12 0
Tasmania ..	3 15 8	5 0 0	3 16 3	3 0 9	3 5 4
Total ..	3 17 1	4 19 5	3 18 6	3 5 1	3 10 11

The average rate of interest on debt maturing in Australia has been reduced from £5 4s. 11d. per cent. in 1931 to £3 5s. 1d. per cent. in 1945. For debt maturing in London the average rate increased from £4 12s. 7d. per cent. in 1931 to £4 13s. 3d. in 1932, but, as a result of the conversions effected in London between 1932 and 1934, fell to £4 2s. 8d. in 1934, and subsequent conversions have reduced the rate to £3 17s. 1d. in 1945. New York loans have decreased from £5 2s. 6d. per cent. in 1931 to £4 19s. 5d. in 1945.

(ii) *Indebtedness at each Rate.* The following table shows, for the combined States, particulars of the total debt at each rate of interest and according to the domicile of the debt.

STATE PUBLIC DEBTS AT 30th JUNE, 1945 : AMOUNTS AT EACH RATE OF INTEREST PAYABLE.

Maturing in—

Rate of Interest		Maturing in—			
		London.	New York.	Australia.	Total.
%		£ (Stg.)	£ (Stg.)	£ (Aust.)	£
6.0	.. ..	..	2,054,865	..	2,054,865
5.25	.. ..	17,870,500	..	..	17,870,500
5.0375	.. ..	..	..	500,000	500,000
5.0	.. ..	79,239,072	17,575,292	..	96,814,364
4.5	.. ..	..	5,678,576	..	5,678,576
4.0	.. ..	58,382,043	..	99,145,353	157,527,396
3.875	.. ..	..	..	65,749,732	65,749,732
3.75	.. ..	24,649,683	..	44,778,750	69,428,433
3.625	.. ..	..	..	5,117,550	5,117,550
3.5	.. ..	92,058,427	..	1,219,262	93,277,689
3.4875	.. ..	..	..	5,873,667	5,873,667
3.375	.. ..	..	..	18,071,740	18,071,740
3.25	.. ..	18,123,411	..	146,284,851	164,408,262
3.125	.. ..	..	..	173,230	173,230
3.1	.. ..	..	..	4,366,228	4,366,228
3.0	.. ..	48,198,705	..	30,429,543	78,628,248
2.75	.. ..	..	..	3,592,020	3,592,020
2.7125	.. ..	..	..	607,266	607,266
2.5	.. ..	..	..	43,483,995	43,483,995
2.325	.. ..	..	..	1,797,187	1,797,187
2.25	.. ..	21,376,840	..	..	21,376,840
2.0	.. ..	1,491,000	..	..	1,491,000
1.0	.. ..	..	..	42,917,820	42,917,820
Overdue	.. ..	1,950	..	169,155	171,105
Total Debt ..		361,391,631	25,308,733	514,277,349	900,977,713

(iii) *Variations from 1901 to 1945.*—The variations in the rates of interest payable on the public debts of the States are shown in the following table which gives the percentages of the total debts in various interest groups during the years specified, and the average rate of interest in each year :—

STATE PUBLIC DEBTS : PERCENTAGES, ETC., IN VARIOUS INTEREST GROUPS.

Percentage of Total Debt at 30th June—

Interest Rates	1901.	1911.	1921.	1931.	1941.	1943.	1944.	1945.
	%	%	%	%	%	%	%	%
Not exceeding 3 per cent.	18.0	17.9	10.2	5.3	18.5	19.3	20.1	21.5
Exceeding 3 per cent. but not exceeding 4 per cent.	78.5	81.9	45.4	17.2	63.6	66.8	66.1	64.8
Exceeding 4 per cent. but not exceeding 5 per cent.	3.1	0.1	15.6	36.8	15.5	11.6	11.5	11.4
Exceeding 5 per cent. but not exceeding 6 per cent.	0.4	0.1	23.5	38.4	2.2	2.3	2.3	2.3
Exceeding 6 per cent.	..	..	5.3	2.3	0.2	..	..	..
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Average Rate of Interest Payable	3.7	3.6	4.4	4.9	3.7	3.6	3.6	3.5

5. **Dates of Maturity.**—Securities like the British Consols are interminable, but Australian debts have in most cases a fixed date for repayment, there being a few exceptions which are included in the following table under the headings "Interminable", "Treasurer's option", and "Indefinite". Those terminable at "Treasurer's option" include amounts which are payable by the respective Governments after giving a specified notice, and those "indefinite" consist of certain amounts owing to the Commonwealth Government. Generally, renewal is effected at date of maturity in respect of the greater portion of the loan. In order to avoid application to the market at an unfavourable time, the practice has been adopted of specifying a period prior to the date of maturity within which the Government, on giving notice, has the option of redeeming the loan. The Government can, therefore, take advantages of opportunities that may offer during the period for favourable renewals. Particulars concerning the due dates of latest maturity of the State loans outstanding on 30th June, 1945 are given in the following table, the various maturities being grouped according to years ended 30th June.

STATE PUBLIC DEBTS AT 30th JUNE, 1945 : LATEST DATES OF MATURITY.

Year of Maturity.	Maturing in—			
	London.	New York.	Australia.	Total.
	£ Stg.	£ Stg.	£ Aust.	£
1945-46	22,867,840	..	10,351,338	33,219,178
1946-47	21,748,310	2,054,865	12,198,595	36,001,770
1947-48 .. .. .	..	..	22,025,266	22,025,266
1948-49	38,351,386	..	38,856,783	77,208,169
1949-50	6,055,545	..	41,179,672	47,235,217
1950-51	20,454,078	..	17,078,214	37,532,292
1951-52 .. .. .	..	..	26,318,322	26,318,322
1952-53	11,789,758	..	1,103,476	12,893,234
1953-54	16,526,691	..	15,540,145	32,066,836
1954-55	3,204,904	..	42,397,844	45,602,748
1955-56 .. .. .	..	10,471,733	36,618,940	47,090,673
1956-57 .. .. .	..	3,803,761	25,452,349	29,256,110
1957-58	38,171,400	8,978,374	55,305,582	102,455,356
1958-59	21,083,600	..	32,864,072	53,947,672
1959-60	3,779,524	..	33,015,393	36,794,917
1960-61	9,417,718	..	32,812,833	42,230,551
1961-62	4,866,583	..	15,295,342	20,161,925
1962-63	10,283,396	..	1,668,476	11,951,872
1963-64 .. .. .	..	..	3,603,996	3,603,996
1964-65 .. .. .	..	..	1,563,718	1,563,718
1965-66	14,055,000	..	1,084,157	15,139,157
1966-67	24,022,000	..	2,450,322	26,472,322
1967-68 .. .. .	..	..	2,201,940	2,201,940
1968-69 .. .. .	..	..	2,455,217	2,455,217
1969-70	1,920,650	..	2,310,891	4,231,541
1970-71	11,545,722	..	1,351,057	12,896,779
1971-72 .. .. .	..	..	1,411,855	1,411,855
1972-73 .. .. .	..	..	1,475,388	1,475,388
1973-74 .. .. .	..	..	1,541,781	1,541,781
1974-75	13,603,528	..	1,611,161	15,214,689
1975-76	65,183,072	..	1,683,663	66,866,735
1976-77 .. .. .	..	..	1,809,492	1,809,492
1977-78 .. .. .	..	..	1,838,602	1,838,602
1978-79 .. .. .	..	..	1,921,339	1,921,339
1979-80 .. .. .	..	..	2,007,800	2,007,800
1980-81 .. .. .	..	..	2,098,151	2,098,151
1981-82 .. .. .	..	..	2,192,567	2,192,567
1982-83 .. .. .	..	..	1,661,270	1,661,270
Overdue	1,950	..	169,155	171,105
Interminable	1,000	..	..	1,000
Treasurer's option	2,397,149	..	..	2,397,149
Half-yearly drawings	60,827	..	5,273,654	5,334,481
Indefinite .. .. .	..	..	10,477,531	10,477,531
Total	361,391,631	25,308,733	514,277,349	900,977,713

Particulars of the State Public Debts according to the year of earliest maturity are shown hereunder :—

STATE PUBLIC DEBTS AT 30th JUNE, 1945 : EARLIEST DATES OF MATURITY.

Year of Maturity.	Maturing in—			
	London.	New York.	Australia.	Total.
	£ Stg.	£ Stg.	£ Aust.	£
Before 1945-46	86,333,021	7,669,578	.. .. .	94,002,599
1945-46	118,188,761	..	16,695,228	134,883,989
1946-47 .. .. .	..	2,054,865	10,868,755	12,923,620
1947-48	17,870,500	5,112,557	28,472,016	51,455,073
1948-49	10,900,772	..	43,536,793	54,437,475
1949-50	7,976,195	..	25,663,952	33,640,147
1950-51	22,585,823	..	159,078,329	181,664,152
1951-52 .. .. .	..	..	26,318,322	26,318,322
1952-53 .. .. .	..	4,793,157	42,055,186	46,848,343
1953-54	21,083,600	..	37,239,755	58,323,355
1954-55	20,300,900	..	1,446,134	21,747,034
1955-56	16,065,605	5,678,576	14,919,330	36,663,511
1956-57 .. .. .	..	..	1,326,219	1,326,219
1957-58 .. .. .	..	..	14,941,212	14,941,212
1958-59 .. .. .	..	..	1,344,897	1,344,897
1959-60 .. .. .	..	..	15,851,153	15,851,153
1960-61 .. .. .	..	..	3,672,833	3,672,833
1961-62	24,022,000	..	14,984,142	39,006,142
1962-63 .. .. .	..	..	1,668,476	1,668,476
1963-64 .. .. .	..	..	3,603,996	3,603,996
1964-65	13,603,528	..	1,563,718	15,167,246
1965-66 .. .. .	..	..	1,084,157	1,084,157
1966-67 .. .. .	..	..	2,450,322	2,450,322
1967-68 .. .. .	..	..	2,201,940	2,201,940
1968-69 .. .. .	..	..	2,455,217	2,455,217
1969-70 .. .. .	..	..	2,310,891	2,310,891
1970-71 .. .. .	..	..	1,351,957	1,351,957
1971-72 .. .. .	..	..	1,411,855	1,411,855
1972-73 .. .. .	..	..	1,475,388	1,475,388
1973-74 .. .. .	..	..	1,541,781	1,541,781
1974-75 .. .. .	..	..	1,611,161	1,611,161
1975-76 .. .. .	..	..	1,683,663	1,683,663
1976-77 .. .. .	..	..	1,809,492	1,809,492
1977-78 .. .. .	..	..	1,838,602	1,838,602
1978-79 .. .. .	..	..	1,921,339	1,921,339
1979-80 .. .. .	..	..	2,007,800	2,007,800
1980-81 .. .. .	..	..	2,098,151	2,098,151
1981-82 .. .. .	..	..	2,192,567	2,192,567
1982-83 .. .. .	..	..	1,661,270	1,661,270
Overdue	1,950	..	169,155	171,105
Interminable	1,000	..	..	1,000
Treasurer's option	2,397,149	..	..	2,397,149
Half-yearly drawings	60,827	..	5,273,654	5,334,481
Indefinite .. .. .	..	..	10,477,531	10,477,531
Total	361,391,631	25,308,733	514,277,349	900,977,713

Under the Financial Agreement Act 1944, Treasury Bills issued to meet State revenue deficits accruing between 1st July, 1928 and 30th June, 1935 were retired on 31st December, 1944. In place of those not redeemed one per cent. debentures amounting to £43,018,000 were issued. One of these debentures will mature in each year up to 1983. Particulars of these debentures are included under their respective years of maturity in the tables above. For further details see par. 4, Section D.—Commonwealth and State Finance.

6. **Sinking Funds.**—Prior to the passing of the Financial Agreement Act 1928, the practice of providing sinking funds by the States had been consistently followed in Western Australia only. This Act contains provisions for the establishment of a sinking fund on States' debts (see p. 736). Some particulars of the transactions of the National Debt Sinking Fund (States' Account) for 1944-45 are shown below, and further details are given in the *Finance Bulletin* issued by this Bureau.

STATE PUBLIC DEBTS AT 30th JUNE, 1945 : SINKING FUNDS.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
	£	£	£	£	£	£	£
Total Receipts, 1944-45	3,641,762	1,652,745	1,183,730	1,065,133	950,691	262,392	8,756,453
Total Receipts, to 30th June, 1945..	37,938,064	19,192,320	14,190,377	11,517,951	10,381,682	2,920,449	96,140,843
Total Funds applied to Redemptions, 1944-45	4,835,231	1,697,618	1,894,655	1,029,327	913,757	222,405	10,591,993
Total Funds applied to Redemptions, to 30th June, 1945	37,776,564	18,769,667	13,709,666	11,422,122	11,208,984	2,854,909	95,741,912
Total Funds applied to investments to 30th June, 1945(a)	..	..	250,305	..	Cr.954,395b	..	Cr. 704,090
Total Expenditure to 30th June, 1945..	37,776,564	18,769,667	13,959,971	11,422,122	10,254,589	2,854,909	95,037,822
Balance at 30th June, 1945, not permanently invested ..	161,500	422,653	230,406	95,829	127,093	65,540	1,103,021
Investments at 30th June, 1945 ..	..	..	901,607	..	..	..	901,607
Total Balance at 30th June, 1945 ..	161,500	422,653	1,132,013	95,829	127,093	65,540	2,004,628

(a) Less amounts received on investments realized to 30th June, 1945.

(b) Investments realized.

D.—COMMONWEALTH AND STATE FINANCE.

1. **Revenue and Expenditure.**—(i) *Consolidated Revenue Funds.*—The following tables show the aggregate revenue and expenditure of the Commonwealth and States from Consolidated Revenue Funds for each of the five years 1938-39 and 1941-42 to 1944-45.

In previous issues of the Year Book deductions were made from the total revenue and expenditure of the Commonwealth and of the States to avoid duplications caused by payments made by the Commonwealth to the States, and miscellaneous receipts by the Commonwealth from the States. The following table shows the total revenue and the total expenditure of the Commonwealth and of the States (including these payments) as shown in other sections of this Year Book, and unadjusted and adjusted figures for the aggregate revenue and expenditure are given. The adjusted figure is obtained by deducting, from the total, payments made by the Commonwealth to the States on account

of Income and Entertainments Tax Reimbursements, of interest under the Financial Agreement and of Special Grants. An estimate of pay-roll tax paid by the States to the Commonwealth has also been deducted.

COMMONWEALTH AND STATE CONSOLIDATED REVENUE FUNDS : REVENUE.

Year ended 30th June—					Common- wealth.	State.	Total.	
							Unadjusted.	Adjusted.
					£'000.	£'000.	£'000.	£m.
1939	..	..	..	..	95,064	124,894	219,958	210.2
1942	..	..	..	..	210,041	152,942	362,983	351.6
1943	..	..	..	..	294,459	168,942	463,401	425.0
1944	..	..	..	..	342,188	169,616	511,804	467.2
1945	..	..	..	..	376,854	169,104	545,958	500.3

COMMONWEALTH AND STATE CONSOLIDATED REVENUE FUNDS :
EXPENDITURE.

Year ended 30th June—					Common- wealth.	State.	Total.	
							Unadjusted.	Adjusted.
					£'000.	£'000.	£'000.	£m.
1939	..	..	..	..	94,437	128,770	223,207	213.4
1942	..	..	..	..	(a)210,041	149,907	359,948	348.4
1943	..	..	..	..	(a)294,459	166,797	461,256	422.4
1944	..	..	..	..	(a)342,188	167,615	509,803	464.8
1945	..	..	..	..	(a)376,854	167,785	544,639	499.0

(a) Includes expenditure on Defence and 1939-45 War Services.

(ii) *Loan Expenditure.* The aggregate gross and net loan expenditures of the Commonwealth and States on Works and Services for the years 1938-39 and 1941-42 to 1944-45 are shown in the following table :—

COMMONWEALTH AND STATE LOAN EXPENDITURE : WORKS AND
SERVICES.(a)

Year ended 30th June—					Gross Loan Expenditure.			Net Loan Expenditure.		
					Common- wealth.	State.	Total.	Common- wealth.	State.	Total.
					£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1939	..	..	..	..	3,913	21,399	25,312	3,594	13,178	16,772
1942	..	..	..	..	b 212,838	14,404	227,242	b 212,805	8,465	221,270
1943	..	..	..	..	b 403,087	10,503	413,590	b 403,017	4,087	407,104
1944	..	..	..	..	b 377,157	9,713	386,870	cb 377,364	2,965	380,329
1945	..	..	..	..	b 266,040	13,090	279,130	b 265,991	6,215	272,206

(a) Excludes expenditure on loan flotations, funding deficits, etc. (b) Includes expenditure on Defence and 1939-45 War Services. (c) Includes £233,000 expenditure on adjustment of credits of previous years.

2. **Taxation.**—The following table shows the combined Commonwealth and State taxation for the years 1938-39 and 1941-42 to 1944-45 as well as the amount per head of population. Taxation collections by the State Governments which are not paid into the Consolidated Revenue Funds have been included.

COMMONWEALTH AND STATE TAXATION: TOTAL COLLECTIONS.

Particulars.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£	£
Commonwealth—					
Income Tax	11,882,440	77,563,926	141,027,271	183,799,169	215,534,937
Customs and Excise ..	47,632,365	56,780,808	64,878,120	67,291,416	67,176,671
Sales Tax	9,308,334	26,830,085	28,846,255	27,908,691	29,671,802
Flour Tax	1,808,972	1,651,717	1,708,543	1,940,481	1,995,775
Other.. ..	3,404,788	16,608,809	20,683,331	22,727,186	23,541,282
Total	74,036,899	179,435,345	257,143,520	303,666,943	337,919,567
State—					
Income Tax	29,791,201	36,869,532	47,684,552	41,446,189 ^a	821,637
Other.. ..	20,715,796	20,389,946	18,644,788	19,868,106	21,289,330
Total	50,506,997	57,259,478	66,329,340	61,314,295	842,927
Grand Total ..	124,543,896	236,694,823	283,472,860	324,981,238	360,030,534
Taxation per head—					
Commonwealth (c)—	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Income Tax	1 14 4	10 17 4	19 11 10	25 5 11	29 7 2
Customs and Excise ..	6 17 7	7 19 1	9 0 3	9 5 3	9 3 0
Sales Tax	1 6 10	3 15 2	4 0 2	3 16 10	4 0 10
Flour Tax	0 5 3	0 4 8	0 4 9	0 5 4	0 5 5
Other	0 9 10	2 6 7	2 17 5	3 2 6	3 4 2
Total	10 13 10	25 2 10	35 14 5	41 15 10	46 0 7
State(d)—					
Income Tax	4 6 3	5 3 6	1 1 5	0 4 0	0 2 3
Other	2 19 11	2 17 5	2 11 11	2 14 10	2 18 2
Total	7 6 2	8 0 11	3 13 4	2 18 10	3 0 5
Grand Total (c) ..	17 19 6	33 3 3	39 7 6	44 14 6	49 0 10

(a) Arrears of State Income Tax. (b) Excludes Income and Entertainments Tax Reimbursements. (c) Based on mean population for each financial year. (d) Based on aggregate mean population of the six States for each financial year.

3. **Public Debt.**—(i) *Where redeemable.* The following table shows the public debt of the Commonwealth and of the States at 30th June in each of the years 1939 and 1942 to 1945.

COMMONWEALTH AND STATE PUBLIC DEBTS AT 30th JUNE.

Particulars.	Where Redeemable.	1939.	1942.	1943.	1944.	1945.
Commonwealth	Australia £ A.	218,496,483	528,520,654	917,351,171	1,299,079,078	1,552,196,222
	London £ Stg.	162,840,947	173,753,476	173,756,977	161,228,671	160,978,670
	New York £ Stg.	15,913,501	15,876,718	15,790,414	15,790,414	15,790,414
	Total £ (a)	397,250,931	718,150,848	1,106,898,562	1,476,098,163	1,728,965,306
States ..	Australia £ A.	485,179,757	504,439,305	494,115,500	491,839,508	514,277,349
	London £ Stg.	384,327,833	380,422,219	379,113,037	373,504,726	361,391,631
	New York £ Stg.	28,264,451	25,816,388	25,610,182	25,415,586	25,308,733
	Total £ (a)	897,772,041	910,677,912	898,838,719	890,759,820	900,977,713
Total, Commonwealth and States	Australia £ A.	703,676,240	1,032,959,959	1,411,466,671	1,790,918,586	2,066,473,571
	London £ Stg.	547,168,780	554,175,695	552,870,014	534,733,397	522,370,301
	New York £ Stg.	44,177,952	41,693,106	41,400,596	41,206,000	41,099,147
	Grand Total £(a)	1,295,022,972	1,628,828,760	2,005,737,281	2,366,857,983	2,629,943,019

(a) The "face" or "book" value of the debts without adjustment on account of currency changes since the loans were floated. Debt maturing in New York has been converted from dollars to sterling on the basis of \$4.8665 to £ Stg. 1.

(ii) *Interest Payable.* The following table shows the interest payable on the public debt of the Commonwealth and of the States at 30th June in each of the years 1939 and 1942 to 1945:—

COMMONWEALTH AND STATE PUBLIC DEBTS AT 30th JUNE: INTEREST PAYABLE.

Particulars.	Where Payable.	1939.	1942.	1943.	1944.	1945.
Commonwealth ..	Australia £ A.	8,344,627	16,135,040	25,144,319	33,944,945	40,046,655
	London £ Stg. (a)	3,403,554	3,655,830	3,290,884	3,277,105	3,271,480
	New York £ Stg.	777,586	775,930	771,780	771,780	771,780
	Total £ (b)	12,525,767	20,566,800	29,206,983	37,993,830	44,089,915
States ..	Australia £ A.	17,240,238	17,283,764	16,862,701	16,622,757	16,742,183
	London £ Stg.	14,061,882	14,500,345	14,500,853	14,310,933	13,927,674
	New York £ Stg.	1,441,476	1,282,976	1,272,666	1,262,936	1,257,593
	Total £ (b)	33,644,596	33,067,085	32,636,220	32,196,626	31,927,450
Total Commonwealth and States	Australia £ A.	25,581,865	33,418,804	42,007,020	50,567,702	56,788,838
	London £ Stg.	18,366,436	18,156,175	17,791,737	17,588,038	17,199,154
	New York £ Stg.	2,219,062	2,058,906	2,044,446	2,034,716	2,029,373
	Total £ (b)	46,170,363	53,633,885	61,843,203	70,190,456	76,017,365
Average Rate per cent.	Australia £ A.	£ s. d. 3 12 9	£ s. d. 3 5 1	£ s. d. 2 19 9	£ s. d. 2 16 8	£ s. d. 2 15 1
	London £ Stg.	3 18 7	3 16 7	3 17 3	3 17 4	3 17 9
	New York £ Stg.	5 0 6	4 18 9	4 18 9	4 18 9	4 18 9
	Total £ (b)	3 16 0	3 9 6	3 4 10	3 1 7	2 19 9

(a) Excludes suspended interest on War Debt due to the British Government. (b) The nominal amount and average rate of interest payable taking no account of exchange, see footnote (a) above.

(iii) *Short-term Debt.* (a) *Amount.* Particulars of the short-term debt (Treasury Bills and Debentures) of the Commonwealth and States in London and in Australia at intervals from 30th June, 1938 to 30th June, 1945 are given in the following table. These particulars are included in Public Debt tables on earlier pages.

COMMONWEALTH AND STATES : SHORT-TERM DEBT.(a)

Date.	Maturing in London.			Maturing in Australia.		
	Commonwealth.	States.	Total.	Commonwealth.	States.	Total.
	£'000 Stg.	£'000 Stg.	£'000 Stg.	£'000 Aust.	£'000 Aust.	£'000 Aust.
30th June, 1938 ..	5,495	23,155	28,650	..	46,598	46,598
" " 1939 ..	4,220	23,155	27,375	..	50,228	50,228
" " 1940 ..	3,970	23,155	27,125	..	45,463	45,463
" " 1941 ..	3,720	23,155	26,875	1,750	45,423	47,173
" " 1942 ..	3,470	24,879	28,349	80,481	45,083	125,564
" " 1943 ..	3,220	23,730	26,950	259,250	39,200	298,450
" " 1944 ..	2,970	22,868	25,838	343,280	33,075	376,355
30th September, 1944	2,970	22,868	25,838	378,280	32,175	410,455
31st December, 1944 ..	2,720	22,868	25,588	367,280	(b) 430	367,710
31st March, 1945 ..	2,720	22,868	25,588	388,280	430	388,710
30th June, 1945 ..	2,720	22,868	25,588	343,280	330	343,610

(a) Excludes Overdrafts and Internal Treasury Bills. (b) Treasury Bills issued to finance State deficits between 1st July, 1928 and 30th June, 1935 were retired on 31st December, 1944, and debentures having a currency of from 1 to 39 years were issued in their place (see pages 727 and 737).

(b) *Interest Rates.—London.* The following rates of interest were payable on Treasury Bills and Debentures in London during the period 1938–39 to 1944–45 : minimum rate, 2 per cent. ; maximum rate, $2\frac{1}{2}$ per cent. 1938–39 to 1940–41 ; 3 per cent. 1941–42 to 1943–44 ; $2\frac{1}{2}$ per cent. 1944–45.

Australia. The Treasury Bill rates in Australia were as follows :—

$5\frac{1}{2}$ per cent. from 10th October, 1929.	$2\frac{1}{2}$ per cent. from 1st April, 1934.
6 per cent. from 1st October, 1930.	2 per cent. from 15th October, 1934.
4 per cent. from 31st July, 1931.	$1\frac{3}{4}$ per cent. from 1st January, 1935
$3\frac{1}{2}$ per cent. from 27th October, 1932.	$1\frac{1}{2}$ per cent. from 1st May, 1940.
$3\frac{1}{4}$ per cent. from 21st January, 1933.	$1\frac{1}{4}$ per cent. from 1st May, 1943.
$2\frac{3}{4}$ per cent. from 18th February, 1933.	1 per cent. from 1st March, 1945.
$2\frac{1}{2}$ per cent. from 1st June, 1933.	

(iv) *Debts of States and Municipal and Semi-Governmental Bodies.* For the reasons indicated on p. 722 direct comparisons of the debts of the several States should be made with caution. The table following shows for 1940–41 particulars of the debts of the States and the debts due to the Public Creditor by Municipal and Semi-Governmental bodies in each State. This affords a more reliable comparison, but as complete records are not available over a long period, particulars showing comparisons of the growth of the debt cannot be made.

PUBLIC DEBT : STATES, MUNICIPAL AND SEMI-GOVERNMENTAL BODIES,
1939-40 and 1940-41.

State.	Debits of the States. (a)	Due to Public Creditor.(b)		Grand Total.	
		Municipal.	Semi-Governmental Bodies.		
	£'000.	£'000.	£'000.	£'000.	
New South Wales	368,975	37,728	61,202	467,905	
Victoria	181,219	12,210	63,892	257,321	
Queensland	130,094	22,464	3,761	156,319	
South Australia	109,780	760	885	111,425	
Western Australia	97,792	3,031	116	100,939	
Tasmania	28,162	3,075	497	31,734	
<hr/>					
Total, All States {	1940-41 ..	916,022	79,268	130,353	1,125,643
	1939-40 ..	905,727	78,650	126,481	1,110,858

DEBT PER HEAD OF POPULATION.(c)

		£	£	£	£
New South Wales ..	..	131.9	13.5	21.9	167.3
Victoria ..	..	93.5	6.3	33.0	132.8
Queensland ..	..	125.5	21.7	3.6	150.8
South Australia ..	..	183.1	1.3	1.5	185.9
Western Australia ..	..	208.6	6.5	0.2	215.3
Tasmania ..	..	118.0	12.9	2.1	133.0
<hr/>					
Total, All States {	1940-41 ..	129.4	11.2	18.4	159.0
	1939-40 ..	129.2	11.2	18.1	158.5

(a) Includes amounts due by Municipal and Semi-Governmental bodies.
and debts due to Central Government.

(b) Excludes overdrafts

(c) At 30th June, 1940 and 1941.

Details of the Debt of Local and Semi-Governmental Authorities have not been collected since 1940-41.

4. The Financial Agreement between the Commonwealth and the States.—

(i) *Details of the Agreement.* The original Financial Agreement between the Commonwealth and the States was made on 12th December, 1927. It was later affected by the following agreements made under the powers conferred by Section 105A of the Constitution :—

Debt Conversion Agreement—Made 21st July, 1931.

Debt Conversion Agreement (No. 2)—Made 22nd October, 1931.

Agreement relating to Soldier Settlement Loans—Made 3rd July, 1934.

Financial Agreement 1944—Made 15th November, 1944.

The Debt Conversion Agreements did not affect the wording of the main agreement, but contained provisions stating that where their provisions were not in accordance with any contained in the Financial Agreement the former should prevail. An Agreement was made between the Commonwealth and Tasmania only on 1st July, 1928. This was not an amendment, but was made under the authority of Part III, Clause 3 (l) of the original Agreement.

A summary of the original Agreement as affected by the subsequent Agreements is given below.

(i) *Australian Loan Council.* Under the Agreement, an Australian Loan Council was set up to co-ordinate the public borrowings of the Commonwealth and the States. It consists of the Prime Minister of the Commonwealth as Chairman and the Premier of each State, or in their absences Ministers nominated by them in writing.

Each of the Governments submits annually to the Loan Council a programme setting forth the amount it desires to raise by loans during each financial year for purposes other than the conversion, renewal or redemption of existing loans, or for temporary purposes. Any revenue deficit to be funded must be included in the loan programme. Loans for Defence purposes are not subject to the Agreement, and therefore the Commonwealth is not required to include borrowing for that purpose in its programme for submission to the Loan Council.

If the Loan Council decides that the total amount of the loan programmes for the year cannot be borrowed at reasonable rates and conditions, it then decides the amount which shall be borrowed and may, by unanimous decision, allocate that amount between the Commonwealth and the States. In default of a unanimous decision, the Commonwealth is then entitled to one-fifth of the total amount to be borrowed and each State to a proportion of the remainder equal to the ratio of its net loan expenditure in the preceding five years to the net loan expenditure of all States during the same period.

In questions decided by a majority vote of the Council members, the member representing the Commonwealth has two votes and a casting vote and each member representing a State has one vote.

(ii) *Borrowings of the Commonwealth and the States.* (a) Subject to the decisions of the Loan Council, the Commonwealth arranges for all borrowings for or on behalf of the Commonwealth or any State, and for all conversions, renewals, redemptions, and consolidations of the Public Debts of the Commonwealth and of the States.

(b) If the Loan Council unanimously decides, however, a State may borrow outside Australia in the name of the State, and may issue securities for the amount so borrowed. The Commonwealth then guarantees that the State will fulfil all its obligations to bondholders in respect of the money so borrowed and the money is deemed to be borrowed by the Commonwealth for and on behalf of the State.

(c) Subject to any maximum limits decided upon by the Loan Council for interest, brokerage, discount and other charges, the Commonwealth or any State may—

- (i) Borrow within its own territory, for any purpose, money from any authorities, bodies, funds or institutions (including Savings Banks) constituted or established under Commonwealth or State law or practice;
- (ii) Borrow from the public by means of counter sales of securities; and
- (iii) Use any available public moneys.

However, any securities issued for money so borrowed or used must be Commonwealth securities on terms approved by the Loan Council.

(d) Where such borrowings are not solely for temporary purposes, they are treated as loans under the Agreement and, if the amount together with the amount of loan money raised for the Government concerned by the Loan Council exceeds the limit (if any) of the amount to be raised for or by that Government, the excess is deemed to be money received by the Government in the following year on account of its loan programme for that year.

(e) The Commonwealth or any State may use for temporary purposes any public moneys available under the laws of the Commonwealth or a State and may, subject to terms approved by the Loan Council, borrow money for temporary purposes by way of overdraft, or fixed, special or other deposit. The conditions as to sinking fund, etc. do not apply to such temporary borrowing.

(iii) *Taking over of State Public Debts.* Subject to the provision of the Financial Agreement, the Commonwealth took over on 1st July, 1929—

- (a) the balance then unpaid of the gross public debt of each State existing on 30th June, 1927; and
- (b) all other debts of each State existing on 1st July, 1929, for money borrowed by that State deemed by the Agreement to be money borrowed by the Commonwealth for and on behalf of the State—

and in respect of these debts assumed, as between the Commonwealth and the States, the liabilities of the States to bond holders.

The net public debt of each State existing on 30th June, 1927, was as follows:—

	£
New South Wales	234,088,501
Victoria	136,949,942
Queensland	101,977,855
South Australia	84,834,364
Western Australia	61,060,675
Tasmania	22,434,060
Total	641,345,397

These amounts have been varied in accordance with the terms of the "Agreement relating to Soldiers Settlement Loans" made on 3rd July, 1934. The amended figures are—

	£
New South Wales	233,153,779
Victoria	136,348,982
Queensland	101,840,622
South Australia	84,029,376
Western Australia	61,060,675
Tasmania	22,314,180
Total	638,747,614

These amounts represent the gross debt less—

- (a) the values of properties transferred by the States to the Commonwealth as shown below;
- (b) the balances of the State sinking funds at 30th June, 1927.

(iv) *Transferred Properties.* In respect of State properties transferred to the Commonwealth under Section 85 of the Constitution, the States, as from 1st July, 1929, are discharged from any liability in respect of principal, interest or sinking fund on so much of the debts bearing interest at 5 per cent. per annum, taken over by the Commonwealth, as amounts to the agreed value of these properties, namely £10,924,323, apportioned to the several States as follows:—

	£
New South Wales	4,788,005
Victoria	2,302,862
Queensland	1,560,639
South Australia	1,035,631
Western Australia	736,432
Tasmania	500,754
Total	10,924,323

(v) *Payment of Interest.* The Commonwealth will, in each year during a period of 58 years from 1st July, 1927, contribute the sum of £7,584,912 towards the interest payable on the State debts, the States paying the balance to the Commonwealth. After that period, the States will pay to the Commonwealth the whole of the interest due.

The distribution among the States of the contribution of the Commonwealth is as follows :—

	£
New South Wales	2,917,411
Victoria	2,127,159
Queensland	1,096,235
South Australia	703,816
Western Australia	473,432
Tasmania	266,859
Total	7,584,912

These amounts are equal to the sums paid by the Commonwealth to each State in the year 1926–27 at the rate of 25s. per head of population, the rate at which the Commonwealth had contributed annually to the States since 1st July, 1910, as compensation for the States relinquishing, after Federation, the right to levy customs and excise duties.

(vi) *Sinking Funds.* (a) A sinking fund at the rate of 7s. 6d. per annum for each £100 of the net public debts of the States existing on 30th June, 1927, and conversions thereof, was established under the terms of the Agreement. The Commonwealth contributes annually from revenue 2s. 6d. per cent. on the net public debts of the States existing at 30th June, 1927 and each State contributes annually 5s. per cent. on the net public debt of such State at 30th June, 1927. The payments of the Commonwealth and of all States except New South Wales will continue for a period of 58 years from 1st July, 1927, and those of New South Wales for a similar period from 1st July, 1928.

(b) On new borrowings after 1st July, 1927 (except those for redemptions or conversions, or funding a State deficit) a sinking fund at the rate of 10s. per cent. per annum was established and the State and the Commonwealth contribute from revenue equal shares for a period of 53 years from the date of raising. (New South Wales did not commence sinking fund contributions in respect of new loans raised in the financial year 1927–28 until 1st July, 1928.)

(c) Any State may increase its contribution in respect of loan funds expended on wasting assets in order to redeem a loan within a shorter period than 53 years. When this shorter period has expired, the State contributions cease but the Commonwealth contributions continue until the full period of 53 years has elapsed. State contributions in respect of other loans are reduced by the amount of these Commonwealth contributions during the period remaining.

(d) Where loan moneys have been advanced by a State under terms providing for their repayment, the State may credit such repayments either to the loan account or to the sinking fund and, in addition, it must provide from revenue its sinking fund contributions in respect of the loan from which the money so advanced was provided. However, advances repaid to the State from the revenue of Public or Local Authorities may be used by the State to meet sinking fund contributions in respect of the loans concerned.

(e) In respect of any loan (except any of the loans referred to in par. (f) below) raised after 30th June, 1927 by a State to meet a revenue deficit accruing after that date, no sinking fund contribution is made by the Commonwealth, but the State makes a sinking fund contribution at the rate of not less than 4 per cent. per annum of the loan for a period sufficient to provide for the redemption of the loan, the contributions being deemed to accumulate at the rate of $4\frac{1}{2}$ per cent. per annum compound interest.

(f) In respect of loans raised by a State or by the Commonwealth on behalf of a State, on the security of Commonwealth Treasury Bills, to meet a revenue deficit accruing after 30th June, 1927 and before 1st July, 1935, the Commonwealth and the State shall in each year during the period commencing on 1st July succeeding the date of raising the loan and ending on 30th June, 1944, pay from revenue a sinking fund contribution at the rate of 5s. for each £100 of the total amount of the Commonwealth Treasury Bills which have been issued in respect of these loans and which are current on 30th June preceding the commencement of the year in which the sinking fund contribution is payable.

The National Debt Commission shall apply the following amounts to the repurchase or redemption of the Commonwealth Treasury Bills issued as above:—

	£
New South Wales	1,970,000
Victoria	260,000
Queensland	125,000
South Australia	300,000
Western Australia	335,000
Tasmania	10,000
Total	3,000,000

The provisions requiring the States to make a further sinking fund contribution of $4\frac{1}{2}$ per cent. per annum on cancelled securities do not apply to the securities redeemed as above.

In each year during a period of 30 years commencing on 1st July, 1944, the Commonwealth and the State concerned shall each pay from revenue a sinking fund contribution of 5s. per cent. and 15s. per cent. respectively in respect of the following amounts which represent the gross total of the deficit loans mentioned above less the amount to be redeemed by the National Debt Commission (£3,000,000) and the amounts which the States have undertaken to apply to the redemption of these loans, viz. :—

	£
New South Wales	26,120,000
Victoria	3,995,000
Queensland	2,148,000
South Australia	4,920,000
Western Australia	5,390,000
Tasmania	445,000
Total	43,018,000

(g) The sinking funds established are controlled by the National Debt Commission which may arrange with any State to act as its agent in connexion with payments due to bondholders. Except where the conditions relating to sinking funds, redemption funds, and funds of a like nature, held by a State on 30th June, 1929, precluded such transfer, all such funds were transferred to the National Debt Commission.

(h) Sinking fund contributions made in respect of the debts of a State, and funds of that State transferred to the National Debt Commission, are not accumulated but must be applied, whenever expedient, to the redemption and repurchase of loan securities. When such a loan security is repurchased or redeemed by the National Debt Commission, it is cancelled, and the State, in addition to sinking fund contributions otherwise payable, pays a further annual sinking fund contribution at the rate of $4\frac{1}{2}$ per cent. on the face value of the cancelled security.

(i) A State may pay to the National Debt Commission a sum in addition to sinking fund contributions for the repurchase or redemption of securities issued in respect of the public debt of the State. Upon the cancellation of such securities the State shall not be required to make any further sinking fund contribution as provided for in paragraph (h) above. The National Debt Commission may also accept an amount from a State for the repurchase or redemption of particular securities with the condition that the sinking fund contributions in respect of that amount by both the State and Commonwealth shall cease as from the date of cancellation of those securities.

(j) Where, upon the conversion or partial conversion at a discount of any loan, sinking fund moneys are applied to the redemption of any amount of the converted loan the State shall repay to the National Debt Commission from revenue so much of the sinking fund moneys so applied as does not exceed the aggregate amount of the discounts allowed to subscribers to the loan.

(k) Sinking fund contributions in respect of oversea debt shall be calculated at the mint par of exchange prevailing on 1st July, 1927.

(ii) *Enforcement of the Agreement.* Consequent on the failure of the State of New South Wales to provide certain interest payments on its public debts in accordance with the Financial Agreement, the Commonwealth Parliament passed a Financial Agreement Enforcement Act (No. 3 of 1932). The State of New South Wales contended that the Commonwealth could not simply by Commonwealth Act deprive a State of revenue without the interposition of some judicial tribunal. The High Court by a majority decision of four to two held that this was a valid law and dismissed the action, subsequently refusing leave to appeal to the Privy Council.

(iii) *Borrowing by Semi-Governmental Bodies.* It was realized at the inception of the Loan Council that, in the interests of co-ordinated borrowing, the Council should be advised of borrowings of large amounts by semi-governmental bodies. In May, 1936, all resolutions passed by the Loan Council in connexion with semi-governmental borrowings were consolidated into one set of rules, which superseded all previous resolutions. This set of rules is regarded as the "Gentlemen's Agreement", and provides, *inter alia*, for the submission of annual loan programmes in respect of semi-governmental authorities proposing to raise £100,000 or more in a year, for the consideration of such programmes in conjunction with the loan programme of the Government concerned, and for the fixing of the terms of individual semi-governmental loans coming within the scope of the annual programme.

E.—TAXES ON INCOME.

1. **General.**—A description of the development of income taxes in Australia appeared in Official Year Book, No. 35, p. 926. Since July, 1943, the Commonwealth, under the uniform tax arrangement, has been the only authority imposing taxes on income.

2. **Present Taxes.**—At the present time two taxes on incomes of individuals are imposed by the Commonwealth—Income Tax and Social Services Contribution. Both taxes are based on the same definition of assessable income and both are assessed and collected concurrently. Several taxes are imposed on the income of companies for which assessable income is defined in the same way as for individuals.

3. **Assessable Income.**—Income taxes in Australia are levied, primarily, on all income derived from Australian sources by any person, rather than on income derived from all sources by Australian residents. Thus a non-resident is taxed on all income derived from Australia while a resident is, in general, not taxed on income other than dividends derived from overseas (provided the income is taxed in the country in which it is derived).

Certain types of Australian income are exempt from tax in Australia, the most important being income from gold-mining and a small amount of tax-free interest on Commonwealth Government securities. No amount is included in assessable income on account of a house occupied by its owner. Profits derived from the sale of property are not assessable income if such property was not purchased with a view to resale at a profit.

Assessable income is divided into two main groups—personal exertion and property. Personal exertion income includes all wage, salary, business and professional incomes, while property income includes all rents, dividends and interest. Property income is taxed for individual income tax at higher rates than personal exertion income in all cases where the total taxable income exceeds £200. No distinction in rates is made for companies.

Expenses incurred in earning income, certain subscriptions to business associations, trade union dues, war damage insurance and certain A.R.P. expenditure are allowable deductions. Losses incurred in previous years may be carried forward as a deduction.

Income Tax and Social Services Contribution are levied on the taxable income (known as "contributable income" for Social Services Contribution) remaining after making these deductions.

4. **Taxes on Individuals.**—Social Services Contribution was introduced from 1st January, 1946, and is payable on income derived during 1945-46. At the same time rates of Income Tax were reduced by an average amount of $12\frac{1}{2}$ per cent. and by a further amount equal to the amount of Social Services Contribution. Since the change was made in the middle of the year of income it was provided that rates of tax on 1945-46 income should be—

- (a) half the rates of Income Tax imposed on 1944-45 income, plus
- (b) half the reduced rates of Income Tax imposed from 1st January, 1946, plus
- (c) half the rates of Social Services Contribution.

In this way, in effect, half the income is taxed at the old rates and half the income at the reduced rates, thus giving effect to the change of rates in the middle of the income year.

From the 1st July, 1946, rates of Income Tax were further reduced, while the rates of Social Services Contribution were modified and reduced retrospectively to the introduction of the tax on 1st January, 1946. These new rates for both taxes will apply in full to 1946-47 income.

5. **Rebates of Tax.**—No deductions from taxable income are made for dependants but rebates of tax are allowed against income tax assessed. The rebate of tax is calculated as follows :—Concessional allowances of £100 are made for a dependent spouse ; mother ; a housekeeper for a widower with children ; or daughter-housekeeper for a widower without children. Concessional allowances of £75 are made for the first dependent child under 16 years of age ; a child between 16 and 18 years of age receiving full-time education ; or an invalid child aged 16 years or over ; and £30 for each dependent child under 16 years of age in excess of one. Dependent children under 16 years of age include any children (irrespective of relationship) actually dependent on the taxpayer. The allowance made for a dependent spouse or daughter-housekeeper is reduced by £2 for each £1 by which the separate income of the spouse or daughter-housekeeper is over £50 per annum, and if any dependant is only partially maintained or is maintained for less than the full year the allowances are reduced.

Also treated as concessional allowances are the actual expenditure of the taxpayer on life assurance, superannuation and friendly society contributions (amount limited to £100) ; medical, hospital, pharmaceutical, optical and dental expenses ; remuneration of an attendant on a blind or invalid person ; expenditure on artificial limbs, artificial eyes or hearing aids ; funeral expenses (amount limited to £20) ; rates and land taxes on non-income producing property (including an owner-occupied house) ; and gifts to charitable, benevolent or patriotic funds. The amount allowed for dental expenses is limited to £10 for the taxpayer or any one of his dependants and for the whole group medical, hospital, dental, etc., expenses to £50 for the taxpayer or any one of his dependants.

No rebates are allowed against Social Services Contribution, but a concessional rate of contribution is provided where the contributable income does not exceed the sum of the concessional allowances by more than £180.

Rebates of income tax, under the old rates, are calculated by applying the personal exertion rate of tax on the taxable income to the amount of the allowance. Under the rates imposed since the introduction of the Social Services Contribution, a further 1s. 6d. in the £1 is allowed in addition to the personal exertion rate to compensate for the fact that no rebates are allowed for Social Services Contribution. The rebate for dependants, however, is limited to £45 for dependants for whom the concessional allowance is £100 or £75, and to £8 for the second and other children.

A rebate of tax is also allowed on the amounts paid as calls to gold-mining, forestry, and oil prospecting companies at one-third of the normal rebate rate.

Interest on Commonwealth Loans issued prior to 1st January, 1940 is subject to the condition that it shall not be taxed at rates higher than those for 1930-31 and, since present rates are higher in all cases, tax at those rates only is imposed. Interest on Commonwealth Loans issued after 1st January, 1940 and interest on certain State semi-governmental loans issued free of State income tax receive a rebate of 2s. in the £1.

6. **Members of Forces.**—The following concessions in tax are given to members of the Forces :—

- (a) Deferred pay in respect of services up till 30th June, 1947, is exempt from tax, either as credited or when actually earned ;
- (b) Dependants' allowances (but not the member's allotment to dependants) are exempt from tax until 30th June, 1947. At the same time the member receives the concessional rebate for dependants ;
- (c) Active pay of members who serve outside Australia is exempt from tax until 30th June, 1947. Until 13th February, 1946, these members also received retrospective exemption of income previously received in the year of departure and of income received during the whole of the previous year ; exemption was also granted of income received during the three months following their return to Australia. After 13th February, 1946, these exemptions (for income earned in Australia) may only be claimed by members who were outside Australia or who had departed or volunteered to depart with the Interim Forces on that date. As from the same date service in sea-going ships in Australian waters and in air squadrons operating from Australia no longer qualifies as service outside Australia ;
- (d) Members serving within Australia are exempt from tax if their income does not exceed £250. If their income exceeds £250 the members receive a special deduction of £146 which diminishes as the income increases and vanishes at £587. These exemptions and deductions cease after 30th June, 1947.

The income of a member of the Forces serving in Australia is the sum of his active pay and £44 per annum (the assumed value of food, clothing and quarters supplied).

Merchant seamen receive the special deduction allowed to members of the Forces serving in Australia.

7. **Lodgment of Returns and Assessment of Tax.**—All persons with incomes in excess of £104 are required to lodge returns by the 31st July each year (31st August for business incomes). Tax and contribution payable are assessed and assessment notices showing the amount payable are issued during the year following the year of income (in most cases from January to June following the lodgment of the return). The approximate amount payable, however, has already been collected during the income year—from employees by deductions from wages and from non-employees by provisional tax and contributions. The amount shown on the assessment notice is therefore adjusted against the amount already collected and any difference either collected or refunded.

8. **Deductions from Wages and Salaries.**—Employers are required to deduct tax and contribution from each payment of wages and salary to an employee at the appropriate rate in accordance with a deduction scale. This scale shows the amount to be deducted according to the number of dependants the employee has, and makes an average allowance for other concessional rebates.

Under the group scheme of deduction, which covers most employers of over ten persons, the amount deducted is remitted to the Taxation Department, and after 30th June each year each employee is given a group certificate by his employer showing the amount of deductions made during the year. The employee then uses the group certificate for that year to meet, in full or in part, the assessment on that year's income when it is received.

Under the stamp scheme, used by small employers, a stamp deduction card in two parts is used. Each four weeks the employer purchases stamps (also in two parts) for the amount of the deductions made each pay day and sticks one part on each half of the card. At the end of the year the employer gives the employee one half of the card and sends the other half to the Taxation Department. The employee's half is then used in the same way as a group certificate.

9. **Provisional Tax.**—For non-employees collection of tax and contribution for the current year is made at the same time as collection and assessment for the previous year is adjusted. The notice of assessment shows an amount of provisional tax and contribution for the current year. This provisional amount is an approximation to the tax and contribution which will prove to be payable after the return of income for the current

year has been lodged. It is ascertained by assuming that the income of the current year will be the same as that for the previous year (for which a return has already been lodged) but the rates for the current year are applied to the income and not the rates for the year in which it was derived. The assessment notice shows the provisional tax and contribution paid in the previous year as a credit against the tax and contribution assessed on the basis of the return for that year.

Employees with more than £50 income from sources other than wages and salaries are also required to pay provisional tax in respect of that income.

The assessment notice issued in 1946-47 (containing provisional tax for 1946-47) will also contain the last of the three instalments of tax on income derived from non-wage sources in 1943-44 which was spread over three years as part of the pay-as-you-earn adjustments.

10. **Effective Exemptions from Tax.**—Taxpayers without dependants are exempt from Social Services Contribution and Income Tax at the old rates unless their income exceeds £104 and are exempt from Income Tax at the new rates unless their income exceeds £200. The effect of rebates for dependants is to exempt taxpayers with dependants up to the incomes shown below:—

Taxpayer with—	Social Services Contribution.	Income Tax.		
		Old Rates on 1945-46 Income.	New Rates on 1945-46 Income.	Rates on 1946-47 Income.
		£	£	£
Wife	156	156	266	280
„ and one child	175	175	318	345
„ „ two children	211	211	347	378
„ „ three children	257	257	380	412
„ „ four children	277	277	413	447

11. **Rates of Tax on Individuals.**—The following table shows the rates of income tax in respect of 1945-46 and 1946-47 incomes. The rates of income tax on income derived in 1945-46 are half the rates shown below as “old” rates plus half the rates shown below as “reduced” rates.

(T = Taxable Income in Pounds.)

Rates.	Personal Exertion.		Property.	
	Taxable Income.	Tax in Pence.	Taxable Income.	Tax in Pence.
1945-46 Income— “Old” Rates—	£101-£300 £301-£1,000 £1,001-£2,000 £2,001-£3,000 £3,001-£5,000 over £5,000	.165T ² - 3T - 750 .01T ² + 90T - 14,700 .033T ² + 44T + 8,300 .013T ² + 116T - 63,700 .004T ² + 182T - 162,700 222T - 262,700	£101-£200 £201-£300 £301-£1,000 £1,001-£2,000 £2,001-£5,000 over £5,000	.165T ² - 3T - 750 .24T ² - 20.5T - 250 .01T ² + 117.5T - 20,950 .034T ² + 69.5T + 3,050 .00275T ² + 194.5T - 121,950 222T - 190,700
“Reduced” Rates—	£201-£300 £301-£1,000 £1,001-£2,000 £2,001-£3,000 £3,001-£5,000 over £5,000	.15T ² - 24T - 600 .01T ² + 60T - 13,200 .03T ² + 20T + 6,800 .013T ² + 88T - 61,200 .004T ² + 142T - 142,200 182T - 242,200	£201-£300 £301-£1,000 £1,001-£2,000 £2,001-£5,000 over £5,000	.21T ² - 36T - 600 .01T ² + 84T - 18,600 .03075T ² + 42.5T + 2,150 .00275T ² + 154.5T - 109,850 182T - 178,600
1946-47 Income—	£201-£300 £301-£1,000 £1,001-£2,000 £2,001-£3,000 £3,001-£5,000 over £5,000	.06T ² + 12T - 4,800 .02T ² + 36T - 8,400 .025T ² + 26T - 3,400 .014T ² + 70T - 47,400 .005T ² + 124T - 128,400 174T - 253,400	£201-£300 £301-£1,000 £1,001-£2,000 £2,001-£5,000 over £5,000	.1T ² + 7T - 5,400 .02T ² + 55T - 12,600 .029T ² + 37T - 3,600 .0035T ² + 139T - 105,600 174T - 193,100

The basic rate of Social Services Contribution is 3d. in the £1 plus one-eighth of a penny for every £1 by which the contributable income exceeds £100. The maximum basic rate is 1s. 6d. in the £1 which is reached at an income of £220 and applies to all incomes

over that amount. If the contributable income does not exceed the sum of the concessional allowances by more than £180 a concessional rate is provided. The concessional rate is the basic rate multiplied by the ratio of the excess of the contributable income over the sum of the concessional allowances to the lesser of the contributable income or £180. These rates will apply in full to 1946-47 income, but only half rates will be applied to 1945-46 income.

No Social Services Contribution is payable if the contributable income is less than £105, and if the contributable income is less than £113 the contribution payable shall not exceed half the excess of the contributable income over £104.

The rate of tax for farmers and pastoralists is determined by the average taxable income of the five years up to the current year, but the rate is applied to the actual income of the current year.

The minimum amount payable is 10s. and the amount payable and rebates are calculated to the nearest shilling.

12. **Taxes on Sample Individual Incomes.**—The following tables show the Income Tax and Social Services Contribution payable by taxpayers with varying incomes and numbers of dependants on income derived in 1945-46 and in 1946-47 :—

COMMONWEALTH TAXES ON INCOME.

Income.	1945-46 Income Year.			1946-47 Income Year.		
	Income Tax.	Social Services Contribution.	Total.	Income Tax.	Social Services Contribution.	Total.
INCOME FROM PERSONAL EXERTION.—TAXPAYER WITH NO DEPENDANTS.						
£	£	£	£	£	£	£
100
150	..	5.25	2.90	..	5.80	5.80
200	..	10.95	6.45	..	12.90	12.90
250	..	24.15	9.35	..	18.75	26.85
300	..	39.35	11.25	..	22.50	40.00
350	..	56.35	13.10	..	26.25	53.95
400	..	73.55	15.00	..	30.00	68.35
500	..	108.55	18.75	..	37.50	98.35
600	..	144.35	22.50	..	45.00	130.00
800	..	218.55	30.00	..	60.00	198.35
1,000	..	296.05	37.50	..	75.00	273.35
1,500	..	526.75	56.25	..	112.50	495.20
2,000	..	823.10	75.00	..	150.00	769.15
3,000	..	1,539.80	112.50	..	225.00	1,427.50
5,000	..	3,156.45	187.50	..	375.00	2,944.15

INCOME FROM PERSONAL EXERTION.—TAXPAYER WITH DEPENDENT WIFE.

£	£	£	£	£	£	£
100	..	..	..	..	..	..
150	..	..	..	..	..	..
200	..	5.50	3.55	..	7.15	7.15
250	..	9.20	6.50	..	13.00	13.00
300	..	22.50	11.25	..	22.59	26.65
350	..	36.50	13.10	..	26.25	38.55
400	..	51.40	15.00	..	30.00	51.25
500	..	83.10	18.75	..	37.50	78.70
600	..	116.55	22.50	..	45.00	108.35
800	..	187.50	30.00	..	60.00	173.55
1,000	..	262.70	37.50	..	75.00	246.00
1,500	..	487.90	56.25	..	112.50	462.20
2,000	..	778.20	75.00	..	150.00	730.70
3,000	..	1,494.80	112.50	..	225.00	1,382.50
5,000	..	3,111.45	187.50	..	375.00	2,899.15

COMMONWEALTH TAXES ON INCOME—*continued.*

Income.	1945-46 Income Year.			1946-47 Income Year.		
	Income Tax.	Social Services Contribution.	Total.	Income Tax.	Social Services Contribution.	Total.
INCOME FROM PERSONAL EXERTION.—TAXPAYER WITH DEPENDENT WIFE AND ONE CHILD.						
£	£	£	£	£	£	£
100
150
200	..	1.40	0.90	..	1.80	1.80
250	..	3.65	2.60	..	5.20	5.20
300	..	11.45	7.80	..	15.60	15.60
350	..	21.60	12.75	0.70	25.50	26.20
400	..	34.80	15.00	8.45	30.00	38.45
500	..	64.00	18.75	26.45	37.50	63.95
600	..	95.70	22.50	47.10	45.00	92.10
800	..	164.20	30.00	94.95	60.00	154.95
1,000	..	237.70	37.50	150.50	75.00	225.50
1,500	..	458.75	56.25	324.95	112.50	437.45
2,000	..	744.50	75.00	551.85	150.00	701.85
3,000	..	1,453.50	112.50	1,121.80	225.00	1,346.80
5,000	..	3,066.45	187.50	2,480.00	375.00	2,855.00

INCOME FROM PERSONAL EXERTION.—TAXPAYER WITH DEPENDENT WIFE AND TWO CHILDREN.

£	£	£	£	£	£	£
100	..	..	..	..	..	..
150	..	..	..	..	..	..
200	..	..	..	..	..	..
250	..	1.45	1.05	..	2.10	2.10
300	..	8.70	5.95	..	11.85	11.85
350	..	15.65	10.55	..	21.15	21.15
400	..	28.15	15.00	3.35	30.00	33.35
500	..	56.35	18.75	20.55	37.50	58.05
600	..	87.70	22.50	40.60	45.00	85.60
800	..	156.20	30.00	87.55	60.00	147.55
1,000	..	229.70	37.50	142.50	75.00	217.50
1,500	..	450.75	56.25	316.95	112.50	429.45
2,000	..	736.50	75.00	543.85	150.00	693.85
3,000	..	1,445.50	112.50	1,113.80	225.00	1,338.80
5,000	..	3,058.45	187.50	2,472.00	375.00	2,847.00

INCOME FROM PROPERTY.—TAXPAYER WITH NO DEPENDANTS.

£	£	£	£	£	£	£
100	..	..	..	..	..	..
150	..	5.25	2.90	..	5.80	5.80
200	..	10.95	6.45	..	12.90	12.90
250	..	27.40	9.35	10.85	18.75	29.60
300	..	47.30	11.25	58.55	22.50	46.25
350	..	69.65	13.10	82.75	26.25	64.15
400	..	92.20	15.00	107.20	30.00	82.50
500	..	137.90	18.75	156.65	37.50	120.40
600	..	184.50	22.50	207.00	45.00	160.00
800	..	280.10	30.00	310.10	60.00	244.15
1,000	..	370.05	37.50	416.55	75.00	335.00
1,500	..	664.35	56.25	720.60	112.50	600.60
2,000	..	1,017.10	75.00	1,092.10	150.00	926.65
3,000	..	1,801.45	112.50	1,913.95	225.00	1,653.75
5,000	..	3,438.95	187.50	3,626.45	375.00	3,195.40

13. **Company Income Taxes.**—(i) *General.* For taxation purposes, companies are divided into two main groups—public companies and private companies. A private company is defined as a company which is under the control of not more than seven persons, and which is not a company in which the public are substantially interested or a subsidiary of a public company. Ordinary income tax is imposed on both groups of companies, but other taxes on companies are imposed according as to whether a company is public or private. Pay-as-you-earn taxation and Social Services Contribution have not been applied to companies.

(ii) *Public Companies.*—(a) *Ordinary Income Tax.* The income of companies is assessed for Commonwealth Income Tax on the same principles as individuals. Tax is, however, assessed at a flat rate on the whole taxable income. Dividends received are assessable income both for companies and individuals, but companies receive a rebate at the company rate on the amount of dividends included in the taxable income. This rebate is not allowed to non-resident companies. The rate of ordinary income tax is 6s. in the £1. The rate on Commonwealth Loan Interest subject to 1930–31 rates is 1s. 4d. in the £1.

(b) *War-time (Company) Tax.* The War-time (Company) Tax was first imposed in 1940–41 on income derived in 1939–40. The tax is levied on the taxable profit of a company in relation to capital employed. Taxable profit is obtained by deducting from taxable income:—

- (a) Commonwealth ordinary income tax payable in respect of that taxable income; and
- (b) any dividend included in taxable income.

Capital employed excludes shareholdings in other companies.

The tax is imposed on the excess of the taxable profit over 5 per cent. of capital employed. The rates of tax vary from 6 per cent. of the excess to 78 per cent. of the excess (where the excess is over 12 per cent. of capital employed).

Private companies, co-operative companies, mutual life assurance companies, companies in which little or no capital is required and whose profits are derived from commissions, etc., and companies other than subsidiaries whose taxable profits do not exceed £1,000 are exempt from the tax.

(c) *Super Tax.* In conjunction with the War-time (Company) Tax, a Super Tax of 1s. in the £1 on the excess of the taxable income over £5,000 was imposed. All companies receive a rebate of 1s. in the £1 on the amount of dividends (from companies which have already paid super tax) included in super tax income.

Commonwealth Loan Interest subject only to 1930–31 rates of tax is excluded from super tax income since the full 1930–31 rate of 1s. 4d. in the £1 is already paid as ordinary income tax. The interest is, however, included in taxable profit for the purposes of War-time (Company) Tax where it has the effect of reducing the War-time (Company) Tax payable because of the low yield on capital.

If a company is liable to both Super Tax and War-time (Company) Tax, the taxes are alternative and, in effect, only the higher of the two and not both taxes are payable. This is achieved by allowing a rebate against War-time (Company) Tax of the lesser of the following amounts:—

- (a) the amount of War-time (Company) Tax assessed, or
- (b) the net amount of Super Tax payable.

(d) *Undistributed Income Tax.* Since 1940–41 a tax has been imposed at the rate of 2s. in the £1 on the undistributed income of a public company. The undistributed income is the taxable income less:—

- (a) Commonwealth Income Tax, Super Tax and War-time (Company) Tax and any tax paid outside Australia on the taxable income;
- (b) dividends paid out of the taxable income before the expiration of six months (nine months if the company is a non-resident) after the close of the year of income;
- (c) the net loss incurred in carrying on the company's business outside Australia; and
- (d) the portion of Commonwealth Loan Interest subject to 1930–31 rates remaining in the undistributed income.

Mutual life assurance companies and non-resident companies not carrying on business in Australia are exempt from the tax.

(iii) *Private Companies.* Private companies are not liable for War-time (Company) Tax, Super Tax or the normal Undistributed Income Tax. An additional tax on the undistributed income is imposed, this tax being based on the close relationship between a private company and a partnership.

The undistributed income is calculated in approximately the same way as for a public company, but, instead of a flat rate of 2s. in the £1 being imposed, the additional Income Tax and Social Services Contribution which would have been payable by the shareholders, if all the income had been distributed, is calculated, and this amount is charged to the company as additional tax on undistributed income. The tax so charged is allowed with other taxes as a deduction in determining the undistributed income for the following year. In this way the shareholders of a private company are required to pay approximately the same tax as if they were a partnership or sole traders.

14. *Yield of Income Taxes.*—(i) *Collections from all Income Taxes.* The following table shows the collections of taxes of all types imposed on income for the years 1938-39 and 1941-42 to 1945-46:—

INCOME TAX COLLECTIONS.

Year.	Individuals.			Companies.			Total.		
	Commonwealth.	State.	Total.	Commonwealth.	State.	Total.	Commonwealth.	State.	Total.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1938-39 ..	7,582	18,314	25,896	4,300	11,498	15,798	11,882	29,812	41,694
1941-42 ..	46,883	20,352	67,235	30,681	16,370	47,051	77,564	36,722	114,286
1942-43(a) ..	13,481	4,702	18,183	13,408	1,520	14,928	11,882	6,312	18,194
1943-44(a) ..	132,559	887	133,446	51,410	384	51,794	183,069	1,271	184,340
1944-45(a) ..	155,731	491	156,222	59,919	203	60,122	215,650	694	216,344
1945-46(a) ..	159,355	367	159,722	55,310	296	55,606	214,665	663	215,328

(a) Commonwealth collections are greater than the Budget figures by the amount of refunds of State taxes. State collections are net arrears.

(ii) *Commonwealth Income Tax Assessed.* The amounts of Commonwealth taxes assessed on the income of recent years are shown in the following table. The amounts are shown under the year in which most of the assessments were made, i.e., the year following the income year:—

COMMONWEALTH INCOME TAXES ASSESSED.

Tax.	1940-41.	1941-42.	1942-43.	1943-44.	1944-45.
	£'000.	£'000.	£'000.	£'000.	£'000.
Individuals—					
Income Tax	29,787	38,974	83,227	147,064	(b) 40,826
War Tax .. ..	..	8,378	..	..	..
Companies—					
Income Tax	9,342	19,916	35,764	38,012	42,470
Super Tax	2,856	2,713	3,208	3,305	3,804
War-time (Company) Tax ..	2,212	4,090	3,286	3,155	4,390
Undistributed Income Taxes(a)—					
Private Companies	3,766	6,296	9,100	8,647	(b) 2,289
Non-Private Companies ..	2,578	2,397	1,758	1,713	1,988
Total	50,541	82,764	136,343	201,896	95,767

(a) Approximate.

(b) See note (b) on p. 746.

(iii) *Commonwealth Income Tax on Residents in Grades of Incomes.* Individual income taxes assessed on residents were distributed according to grades of actual income (income before allowing deductions of a concessional nature or statutory exemptions and including exempt income) as follows:—

COMMONWEALTH INCOME TAXES ON RESIDENT INDIVIDUALS IN GRADES OF ACTUAL INCOMES.

Grade of Actual Income.	1940-41.(a)		1941-42.(a)		1942-43.(a)		1943-44.(a)		1944-45.(a)	
	No. of Tax-payers.	Tax.	No. of Tax-payers.	Tax.	No. of Tax-payers.	Tax.	No. of Tax-payers.	Tax.	No. of Tax-payers.	Tax.
	£	£	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
Under £151	..	..	..	..	..	..	225,733	1,322	223,462	330
151- 200	..	..	187,000	394	193,605	961	245,136	3,307	252,091	875
201- 250	88,328	242	265,497	1,082	193,259	1,762	184,201	4,000	197,041	1,137
251- 300	127,231	720	316,872	2,173	276,287	3,890	235,401	6,500	231,564	1,756
301- 350	102,204	881	211,813	2,391	266,049	5,733	277,986	10,874	277,991	2,846
351- 400	72,821	876	119,371	2,076	182,714	5,515	240,417	12,439	254,095	3,381
401- 500	86,751	1,570	118,262	3,178	182,915	8,031	275,742	19,983	290,858	5,526
501- 600	44,272	1,300	51,500	2,156	71,949	4,821	108,627	11,468	120,818	3,851
601- 800	633,434	1,559	(c) 36,003	2,251	54,531	5,681	78,148	12,086	90,420	3,594
801- 1,000	d 25,915	2,096	(d) 27,418	2,804	23,675	4,021	31,027	7,405	35,161	2,143
1,001- 1,250	12,376	1,745	13,173	2,260	15,597	4,015	19,746	6,721	22,307	1,915
1,251- 1,500	7,467	1,610	7,720	1,996	9,026	3,329	11,423	5,327	12,839	1,517
1,501- 2,000	7,938	2,748	8,024	3,252	9,756	5,436	12,344	8,219	13,609	2,285
2,001- 3,000	6,294	3,862	6,509	5,063	7,619	7,702	9,375	10,550	10,491	2,993
3,001- 4,000	2,399	2,464	2,316	3,315	2,718	4,815	3,389	6,402	3,731	1,787
4,001- 5,000	1,123	1,562	1,158	2,469	1,223	3,182	1,502	4,048	1,616	1,108
5,001- 10,000	1,480	3,297	1,507	5,301	1,667	7,317	1,977	8,866	2,051	2,312
10,001-15,000	244	1,023	264	1,826	276	2,402	309	2,728	332	755
15,001-30,000	(e) 112	714	(e) 112	1,254	152	2,342	145	2,121	171	638
30,001-50,000	(f) 47	600	(f) 46	910	28	767	28	793	28	190
50,001 and over	12	297	12	401	7	322	10	620	18	222
Total ..	620,448	29,166	1,374,577	46,561	1,493,053	82,044	1,962,756	145,875	2,049,694	40,568

(a) Year in which assessment was made. Incomes relate to previous year. (b) As a result of the introduction of the pay-as-you-earn system, the amount of tax assessed in 1944-45 on income derived in 1943-44 was reduced to approximately one-quarter of the amount which otherwise would have been payable. (c) Grade £601-£750. (d) Grade £751-£1,000. (e) Grade £15,001-£25,000. (f) Grade £25,001-£50,000.

CHAPTER XIX.

PASTORAL PRODUCTION.

§ 1. Initiation and Growth of Pastoral Industry.

1 **Early Statistics.**—The live stock which Captain Phillip brought with him when establishing the first settlement in January, 1788, is stated to have comprised seven horses, six cattle, twenty-nine sheep, twelve pigs and a few goats. Later in the same year in a letter from Captain Phillip to Lord Sydney, then Secretary of State for the Colonies, an enclosure sets forth the number of each kind of live stock in the colony on 1st May, 1788. These details together with those of later enumerations are shown in the following table :—

LIVE STOCK : AUSTRALIA.

Date.	Horses.	Cattle.	Sheep.	Pigs.	Goats.
1st May, 1788 ..	7	7	29	74	19
10th November, 1791 ..	4	18	57	37	(a)
1st July, 1794 ..	(b) 20	40	576	(a)	522
15th June, 1795..	(c) 49	176	832	(a)	985
1st September, 1796 ..	57	227	1,531	1,869	1,427
15th August, 1800 ..	203	1,044	6,124	4,026	2,182

(a) Not stated. (b) Excludes three asses. (c) Excludes seven asses.

The return for the year 1788 includes, in addition to poultry, five rabbits.

2. **Subsequent Statistics.**—The statistical returns of live stock in Australia subsequent to the year 1800 referred mainly to those in possession of the Government, omitting those owned by individuals. Doubtless the growth of population, the expansion of the area settled and the increase of private ownership made it difficult in those early times to secure accurate returns. The figures continued to be somewhat defective up to 1860, but from that year onwards fairly complete information is available for most of the States. At the present time statistics of live stock are collected annually in all the States principally through the agency of the police, but in the years 1885 to 1888 inclusive, and 1893 to 1895 inclusive, these particulars were not collected in South Australia, and similar gaps occur in the Victorian records for the periods 1895 to 1899 inclusive and 1901 to 1903. In order to obtain totals for Australia for these years the missing numbers have been supplied by interpolation. The results so obtained probably differ only slightly from the actual numbers for the respective years.

3. **Increase in Live Stock.**—Particulars concerning the numbers of each of the principal kinds of live stock in Australia at decennial intervals from 1860 to 1930, and from 1936 onwards in single years are given in the following table, and are shown continuously on the graph on page 785.

During the eighty-four years covered by the table the live stock of Australia increased considerably, horses, 236 per cent. ; cattle, 258 per cent. ; sheep, 512 per cent. ; and pigs, 398 per cent. The average annual increases which these aggregates represent are as follows :—Horses, 1.45 per cent. ; cattle, 1.53 per cent. ; sheep, 2.18 per cent. ; and pigs, 1.93 per cent.

LIVE STOCK : AUSTRALIA.

Year.	Horses.	Cattle.	Sheep.	Pigs.
1860	431,525	3,957,915	20,135,286	351,096
1870	716,772	4,276,326	41,593,612	543,388
1880	1,068,774	7,527,142	62,184,252	815,776
1890	1,521,598	10,299,816	97,881,221	891,138
1900	1,609,654	8,640,225	70,602,995	950,349
1910	2,165,866	11,744,714	98,066,046	1,025,850
1920	2,415,510	13,499,737	81,795,727	764,406
1930	1,792,734	11,720,916	110,568,279	1,071,679
1936	1,764,430	13,911,659	108,875,801	1,293,964
1937	1,762,750	13,491,872	110,242,704	1,202,752
1938	1,746,513	13,078,356	113,372,518	1,100,082
1939	1,724,056	12,861,781	111,057,832	1,155,591
1940	1,698,797	13,080,180	119,305,391	1,455,341
1941	1,665,616	13,255,841	122,694,025	1,797,340
1942	1,611,059	13,560,754	125,189,129	1,477,303
1943 (31st March) ..	1,517,970	14,005,320	124,614,672	1,563,000
1944	1,449,199	14,183,679	123,173,962	1,746,721

4. *Fluctuations.*—The increases referred to, however, have not been continuous, marked fluctuations having taken place during the period, mainly on account of droughts which have from time to time left their impress on the pastoral history of Australia. These occurred in 1868, 1877, 1883-4, 1892, 1893, 1895, 1901-2, 1912, 1914, 1918, 1919, 1922-23, 1925-26, 1927-28, 1929-30 and 1940-41.

The years in which the number of live stock attained their maxima are as follows :—Horses, 1918, 2,527,149 ; cattle, 1921, 14,441,309 ; sheep, 1942, 125,189,129 ; and pigs, 1941, 1,797,340.

5. *Live Stock in Relation to Population.*—The number of each kind of live stock per head of the population of Australia has varied during the past eighty-four years as shown in the following table :—

LIVE STOCK PER HEAD OF POPULATION : AUSTRALIA.

Year.	Horses.	Cattle.	Sheep.	Pigs.	Year.	Horses.	Cattle.	Sheep.	Pigs.
1860 ..	0.38	3.45	17.58	0.31	1930 ..	0.28	1.81	17.07	0.17
1870 ..	0.43	2.60	25.24	0.33	1939 ..	0.25	1.87	16.11	0.16
1880 ..	0.48	3.37	27.87	0.37	1940 ..	0.24	1.86	16.97	0.21
1890 ..	0.48	3.17	31.06	0.28	1941 ..	0.23	1.87	17.28	0.25
1900 ..	0.43	2.29	18.75	0.25	1942 ..	0.22	1.89	17.46	0.21
1910 ..	0.49	2.65	22.16	0.23	1943 ..	0.21	1.94	17.24	0.22
1920 ..	0.44	2.49	15.11	0.14	1944 ..	0.20	1.94	16.83	0.24

6. Live Stock in Relation to Area.—The number of live stock per square mile in the several States and Territories of Australia is given in the following table :—

LIVE STOCK PER SQUARE MILE, 1944.

State or Territory.	Horses.	Cattle.	Sheep.	Pigs.
New South Wales	1.51	10.16	183.68	1.81
Victoria	3.16	22.91	218.70	3.84
Queensland	0.58	9.73	34.68	0.67
South Australia	0.41	1.09	27.26	0.49
Western Australia	0.11	0.89	11.28	0.17
Tasmania	1.00	8.78	83.46	1.77
Northern Territory	0.06	1.87	0.05	0.00
Australian Capital Territory	1.23	8.61	292.48	0.70
Australia	0.48	4.77	41.41	0.58

7. Minor Classes of Live Stock.—Excluding Victoria, where the details are not available, the number of minor classes of live stock returned for 1941 were as follows :—Goats, 80,366; camels, 2,267; and mules and donkeys, 10,881. Of these, goats were most numerous in Queensland, and camels, mules and donkeys in Western Australia. In the raising of goats, some attention has been devoted to the angora goat and its product (mohair), and upwards of 5,000 angora goats are included in the number shown above. Of these, 1,640 were in New South Wales, 1,000 in Queensland, 1,531 in South Australia, and 284 in Tasmania. Details for later years were not collected.

8. Net Exports of Principal Pastoral Products.—The quantities by which the exports of the principal pastoral products of Australia exceeded the imports for the years 1938-39 and 1940-41 to 1943-44 were as follows :—

NET EXPORTS OF PASTORAL PRODUCTS : AUSTRALIA.

Product.	Unit of Quantity.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
QUANTITIES.						
Animals (living)—						
Cattle	No.	405	248	56	322	93
Horses	"	2,294	1,668	222	1,110	395
Sheep	"	66,739	86,265	64,750	5,107	7,424
Bones	Cwt.	21,497	2,252	8,502	—200	—165
Glue-pieces and Sinews	"	—11,145	—5,443	—7,209	—10,669	—1,906
Glycerine	lb.	78,727	—1,940,472	—2,016,918	—705,483	304
Hair	"	—1,003,366	—1,259,343	—1,402,642	—327,684	—428,624
Hoofs	Cwt.	(a)	(a)	1,086	(a)	(a)
Horns	"	(a)	(a)	(a)	(a)	(a)
Meats—						
Frozen Beef (b)	lb.	271,948,548	198,625,039	117,070,259	22,621,078	47,446,996
" Mutton and Lamb	"	186,387,551	238,925,384	174,914,611	203,681,520	171,569,765
" Rabbits and Hares	Pair	(a)	(a)	(a)	(a)	(a)
" Other	lb.	19,588,368	23,718,637	8,672,238	15,351,235	28,592,692
Potted, and Extract of	"	(a)	(a)	(a)	(a)	(a)
Preserved in Tins, etc.	lb.	14,778,896	42,444,796	94,059,281	66,736,683	79,607,796
Other (excluding Bacon and Ham)	"	308,448	1,321,135	696,512	2,913,961	664,899
Sausage Casings	Cwt.	8,673	17,178	11,191	14,601	15,107
Skins—						
Cattle	No.	(a)	(a)	4,303	—128,852	61,378
Calf	"	(a)	(a)	20,836	—4,433	—19,237
Horse	"	(a)	(a)	6,512	3,668	9,944
Sheep	"	(a)	(a)	13,353,389	8,254,128	6,861,576
Rabbit	Cwt.	(c) 37,544	88,313	76,831	54,773	102,944
Other (including Undressed Furs)	"	(a)	(a)	(a)	(a)	(a)
Tallow	Cwt.	560,241	548,428	652,630	99,059	590,676
Wool—						
Greasy	lb.	779,781,662	486,744,671	735,134,359	516,775,265	454,308,338
Scoured	"	70,299,595	60,079,146	92,245,202	51,666,359	70,273,672
Tops	"					
Noils	"					
Waste	"					

(a) Quantity not available.

(b) Includes chilled beef.

(c) Includes hare skins.

NOTE.—The minus sign (—) signifies net imports.

The values of the net exports for the same five years are furnished in the next table. For the five years ended 1943-44 they amounted to £A.326,260,666, or an average of £A.65,252,133 per annum, of which wool represents 73.91 per cent. Meat, skins and tallow rank next in order of importance.

NET EXPORTS OF PASTORAL PRODUCTS : AUSTRALIA.

Product.	1938-39.	1940-41.	1941-42.	1942-43	1943-44.
VALUES. (a)					
Animals (living)—	£A.	£A.	£A.	£A.	£A.
Cattle	142	3,214	—38	6,193	—2,531
Horses	—11,258	89,005	16,172	35,089	6,046
Sheep	39,405	86,872	49,280	6,269	—1,822
Bones	10,741	2,768	4,609	—41	—34
Glue-pieces and Sinews	—7,796	—3,690	—7,221	—9,444	—2,491
Glycerine	4,004	—73,713	—149,830	—48,633	22
Hair	—103,353	—184,941	—188,193	—13,007	—64,840
Hoofs	8,027	4,897	755	..	..
Horns	18,615	3,233	1,993	520	822
Meats—					
Frozen Beef(b)	4,323,235	3,761,732	2,484,259	560,498	1,246,315
" Mutton and Lamb	4,807,418	6,142,479	4,669,871	5,495,886	4,643,603
" Rabbits and Hares	232,034	102,175	8,901	14,917	40,664
" Other	417,670	630,998	260,909	430,587	983,320
Potted, and Extract of	—32,580	47,620	96,900	87,407	66,703
Preserved in Tins, etc.	492,709	1,867,208	4,543,550	3,018,150	4,088,947
Other (excluding Bacon and Ham)	6,336	28,169	18,207	298,502	853,796
Sausage Casings	185,049	203,724	12,273	268,353	361,956
Skins—					
Cattle	639,056	351,988	—103,084	—341,605	64,980
Calf	129,199	43,685	7,717	—11,569	—11,939
Horse	7,143	6,555	6,006	3,651	10,499
Sheep	2,330,718	975,458	2,136,428	1,385,480	1,334,847
Rabbit	(0) 393,641	2,201,420	3,305,751	1,986,198	4,493,307
Other (including Undressed Furs)	—287,277	228,430	167,880	65,715	397,215
Tallow	480,459	554,635	830,695	185,945	903,968
Wool—					
Greasy	36,617,167	32,553,757	47,747,308	37,613,502	36,173,979
Scoured, Tops, etc.	5,277,117	6,729,935	10,151,025	6,623,638	9,532,751
Total Values.. .. .	55,984,221	56,357,633	76,141,123	57,670,201	65,120,083

(a) Australian currency values.

(b) Includes chilled beef.

(c) Includes hare skins.

NOTE.—The minus sign (—) signifies net imports.

9. Value of Pastoral Production.—(i) General. Particulars of the gross, local and net values of pastoral production for each State are shown in the following table for 1943-44. Fuller details of the source of the information and an explanation of the terms used in this compilation will be found in Chapter XXVIII. "Miscellaneous". Maintenance costs have not been computed in all States and depreciation has not been deducted; consequently the net values are inflated to the extent of these costs.

GROSS, LOCAL AND NET VALUES OF PASTORAL PRODUCTION, 1943-44.

State.	Gross Production valued at Principal Markets.	Marketing Costs.	Gross Production valued at Farm.	Farm Costs.		Net Value of Production. (a)
				Seed used, and Fodder for Farm Stock.	Value of other materials used in process of Production.	
	£	£	£	£	£	£
New South Wales ..	48,614,000	4,478,000	44,136,000	1,300,000	(b) 256,000	42,580,000
Victoria ..	29,148,380	2,051,267	27,097,113	475,000	490,410	26,131,703
Queensland ..	25,651,000	2,380,000	23,271,000	920,000	370,000	21,981,000
South Aust. ..	9,138,616	925,535	8,213,081	233,393	190,983	7,788,705
Western Aust. ..	9,077,816	813,254	8,264,562	561,647	232,961	7,469,954
Tasmania ..	2,751,950	209,550	2,542,400	71,770	16,070	2,454,560
Total ..	124,381,762	10,857,606	113,524,156	3,561,810	1,556,424	108,405,922

(a) No deduction has been made for depreciation and maintenance.
for costs of power, power kerosene, petrol and other oils.

(b) No allowances made

(ii) States 1934-35 to 1943-44. The following table shows the net value of pastoral production by States and the net value per head of population for the years 1934-35 to 1943-44:—

VALUE OF PASTORAL PRODUCTION.

Year.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Total
NET VALUE. (a)							
	£	£	£	£	£	£	£
1934-35	23,311,000	13,305,109	11,004,135	3,181,285	3,916,280	1,040,690	55,758,499
1935-36	32,799,000	17,422,400	11,561,000	4,602,656	5,350,216	1,492,460	73,227,732
1936-37	39,300,000	19,502,210	14,112,000	5,217,256	4,597,230	1,692,580	84,421,276
1937-38	33,939,000	18,533,223	15,364,000	4,856,629	4,003,310	1,470,580	78,166,742
1938-39	23,613,000	15,156,276	14,881,000	5,054,784	3,666,461	1,449,590	63,821,111
1939-40	34,562,000	16,434,392	17,693,000	6,206,617	4,689,845	1,802,150	81,388,004
1940-41	35,305,000	18,629,094	17,624,000	6,084,562	4,519,541	1,789,450	83,951,647
1941-42	34,121,000	20,467,898	18,117,000	5,779,743	4,879,433	1,993,050	85,358,124
1942-43	38,212,000	24,766,588	22,011,000	7,132,475	6,683,442	2,208,610	101,014,115
1943-44	42,580,000	26,131,703	21,981,000	7,788,705	7,409,954	2,454,560	108,405,922

NET VALUE PER HEAD OF MEAN POPULATION. (a)

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1934-35	8 16 11	7 4 10	11 9 0	5 8 11	8 16 9	4 10 10	8 6 5
1935-36	12 6 11	9 9 1	11 17 10	7 17 0	11 18 11	6 9 7	10 16 11
1936-37	14 13 2	10 10 7	14 6 10	8 17 4	10 3 6	7 5 9	12 8 2
1937-38	12 10 7	9 19 2	15 8 9	8 4 5	8 15 1	6 5 2	11 7 9
1938-39	8 12 9	8 1 8	14 15 7	8 10 1	7 18 5	6 2 4	9 4 3
1939-40	12 10 5	8 13 11	17 6 9	10 7 5	10 0 3	7 10 8	11 12 8
1940-41	12 13 9	9 14 0	17 1 5	10 3 1	9 11 2	7 8 11	11 17 6
1941-42	12 3 6	10 9 7	17 9 0	9 10 4	10 8 3	8 6 2	11 19 2
1942-43	13 10 0	12 11 4	21 2 1	11 12 9	13 18 4	9 3 0	14 0 7
1943-44	14 18 5	13 2 9	20 15 6	12 11 10	15 9 8	10 1 2	14 18 4

(a) No deduction has been made for depreciation and maintenance.

10. **Consumption of Meats.**—Particulars of the per capita quantity of meat available for civilian consumption in Australia, Canada, United Kingdom and the United States are given in the following table. Canned and cured meat has been included at its carcass weight equivalent.

The demand for meat during the war years was such as to necessitate the introduction of rationing in order to divert supplies from civilian consumption to the armed services. In the United Kingdom rationing commenced in January, 1940. In Canada and the United States it commenced early in 1943 but, due to the lack of shipping space for exports, limitations of cold storage capacity to store surplus production as well as other factors, complete rationing of civilian meat supplies was not continuous. Meat rationing was introduced in Australia on 17th January, 1944, and the rate per week fixed for coupon meat averaged $2\frac{1}{2}$ lb. for persons nine years and over and $1\frac{1}{2}$ lb. for children under nine. On 26th February, 1945, however, the coupon rating was reduced by approximately $8\frac{3}{4}$ per cent. averaging 2.1 lb. and 1.05 lb. per week respectively. A further reduction of $12\frac{1}{2}$ per cent. to an average of 1.84 lb. per week for persons nine years and over occurred on the 7th May, 1945. The rate for children under nine remained unaltered at 1.05 lb. per week.

QUANTITY OF MEAT (INCLUDING CURED AND CANNED) AND EDIBLE OFFAL
AVAILABLE FOR CIVILIAN CONSUMPTION PER HEAD PER ANNUM.

(In terms of Carcass Weight.)

Country.				Average Pre-war.	1941.	1944.	1945.
				lb.	lb.	lb.	lb.
Australia ..	..	..	..	248.1	239.2	212.6	195.8
Canada ..	..	..	..	118.4	129.8	149.1	139.7
United Kingdom ..	..	..	..	131.7	101.8	115.0	103.4
United States of America ..	..	..	..	134.1	151.4	162.1	135.9

§ 2. Horses.

1. **Suitability of Australia for Horse-breeding.**—From the earliest times the suitability of the climate and pastures of Australia for the production of serviceable breeds of horses has been fully recognized. By the importation of high-class sires, and the careful selection of breeding mares, these natural advantages have been utilized to the fullest extent in breeding all classes of horses. As a consequence of this combination of advantages, the Australian horse, whether of the heavy draught, medium weight, or light saddle variety, compares more than favourably with the product of other lands. The Australian horse is highly regarded by the military authorities in India and considerable numbers are purchased each year for remount purposes. Owing to the mechanization of the Army the demand has not been so great as in former years.

2. **Distribution throughout Australia.**—The States of New South Wales, Queensland and Victoria together depasture more than 78 per cent. of the total number of horses in Australia. In the following table figures are given for each State and Territory during each of the years 1939 to 1944 :—

HORSES : NUMBER.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Total.
1939	531,355	343,828	444,521	195,834	143,674	30,458	33,191	1,195	1,724,056
1940	534,837	326,217	444,956	190,013	139,207	29,605	32,721	1,241	1,698,797
1941	531,776	318,441	441,770	182,206	130,057	29,406	30,716	1,244	1,665,616
1942	525,697	302,401	431,363	171,092	124,402	28,612	26,209	1,283	1,611,056
1943	483,277	292,534	392,639	164,855	112,782	27,077	43,663	1,143	1,517,970
1944	465,672	277,662	387,018	154,102	106,743	26,317	30,534	1,151	1,449,199

The number of horses attained its maximum in Australia during 1918, when a total of 2,527,149 was recorded. The United States of America made its highest recording in the same year and Canada in 1921. The number in Australia has declined considerably since 1918 owing to the development in motor transportation and the mechanization of farms.

During the years 1939 to 1944 the rate of decline accelerated considerably, averaging 55,000 per annum compared with 8,000 for the previous five years.

The number of horses in Australia from 1860 onwards may be obtained from the graph on page 785.

3. **Proportions in the Several States and Territories.**—The percentages of the number of horses in the several States and Territories on the total for Australia for 1944 were :—New South Wales, 32.13 ; Victoria, 19.16 ; Queensland, 26.71 ; South Australia, 10.63 ; Western Australia, 7.37 ; Tasmania, 1.82 ; Northern Territory, 2.10 ; and Australian Capital Territory, 0.08 per cent.

The percentages in the various States remained fairly constant during the five years 1939 to 1944.

4. **Relation to Population.**—In proportion to population, horses are much more numerous in the Northern Territory than in any other of the principal divisions of Australia. Queensland is next in order, while the Australian Capital Territory and Tasmania have the smallest number of horses per head. The number per head of population has declined in each State and Territory since 1927. For the year 1944 the relative numbers were :—New South Wales, 0.16 ; Victoria, 0.14 ; Queensland, 0.36 ; South Australia, 0.25 ; Western Australia, 0.22 ; Tasmania, 0.11 ; Northern Territory, 5.92 ; Australian Capital Territory, 0.08 ; and Australia, 0.20.

5. **Comparison with other Countries.**—Particulars of the number of horses in the leading horse-breeding countries of the world prior to the 1939-45 War are as follows :—

HORSES : NUMBER IN PRINCIPAL COUNTRIES.

Country.	Year.	Number of Horses (,000 omitted).	Country.	Year.	Number of Horses (,000 omitted).
U.S.S.R. (Russia) ..	1938	17,500	Turkey ..	1938	651
U.S.A. ..	1938	10,800	Uruguay ..	1930	623
Argentina ..	1937	8,527	Sweden ..	1938	617
Brazil ..	1935	6,052	Cuba ..	1934	569
China ..	1935	4,080	Spain ..	1933	568
Poland ..	1938	3,886	Denmark ..	1938	565
Germany ..	1938	3,443	Lithuania ..	1938	558
Canada ..	1938	2,821	Bulgaria ..	1934	532
France ..	1938	2,692	Chile ..	1936	528
India (British and Native) ..	1936	2,380	Eire ..	1938	442
Rumania ..	1937	2,167	Peru ..	1932	432
Mexico ..	1932	1,888	Haiti ..	1935	400
Manchuria ..	1936	1,840	Latvia ..	1938	400
Australia ..	1939	1,724	Bolivia ..	1932	390
Japan ..	1936	1,432	Thailand ..	1938	386
Yugoslavia ..	1938	1,265	Finland ..	1937	380
United Kingdom ..	1938	1,100	Greece ..	1937	372
Colombia ..	1934	972	Netherlands ..	1938	312
Hungary ..	1938	814	New Zealand ..	1938	278
Italy ..	1938	791	Belgium ..	1938	265
Union of South Africa ..	1937	778	Austria ..	1938	246
Czechoslovakia ..	1936	704	Estonia ..	1938	219
Dutch East Indies ..	1937	671	French Morocco ..	1938	192
			Paraguay ..	1935	186

6. **Oversea Trade in Horses.**—(i) *Exports.* Australia's export trade in horses is far below that of earlier years. During the period 1901-5 the average number exported annually was over 18,000, whereas during the last five years the figure was 1,041. The total number of horses exported during the latter period amounted to 5,205, valued at £322,074. The average export price per head was £61 17s. 7d. The horses exported to India, where they are largely used for army remounts, averaged 333 or 32 per cent. of the average exports for the five-yearly period ended 1943-44.

(ii) *Imports.* The number of horses imported into Australia is comparatively small, consisting mainly of valuable stud animals from the United Kingdom and racehorses from New Zealand. The average value per head of the horses imported during the five years 1939-40 to 1943-44 was £A640. The average number imported per annum was, however, only 61, and the average annual value, £39,271.

Transport difficulties, due to the exigencies of war, affected trade as shown in the table below :—

HORSES : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value.	No.	Value.	No.	Value.
		£ A.		£A.		£A.
1938-39 ..	238	125,192	2,532	113,934	2,294	— 11,258
1939-40 ..	190	100,688	1,693	80,094	1,503	— 20,594
1940-41 ..	51	39,619	1,719	128,624	1,668	89,005
1941-42 ..	35	33,075	257	49,247	222	16,172
1942-43 ..	5	3,268	1,115	38,356	1,110	35,088
1943-44 ..	26	19,707	421	25,753	395	6,046

NOTE.—The minus sign (—) signifies net imports.

§ 3. Cattle.

1. **Purposes for which Raised.**—Cattle-raising is carried out in all the States, the main object in certain districts being the production of stock suitable for slaughtering purposes, and in others the raising of profitable dairy herds. The great impetus which the development of the export trade in Australian butter gave to the dairying industry led to a considerable increase in numbers and an improvement in quality of the dairy herds in Victoria, New South Wales and Southern Queensland in particular, the portion of Australia in the temperate zone being the best adapted to this industry. On the other hand, beef-producing cattle are mainly raised in the tropical districts, i.e., in the northern parts of Queensland, in the Northern Territory, and in the Kimberley district in the north of Western Australia.

2. **Distribution throughout Australia.**—Until 1880, New South Wales was the principal cattle-raising State, but in that year Queensland occupied the leading position, which it has since maintained. There was a very rapid increase in the number of cattle in Australia up to the year 1894, when 12,311,617 head were depastured. From 1895 onwards, however, the effects of droughts and the ravages of tick fever reduced the number to 7,062,742 in 1902. Following the disastrous drought which terminated in the latter year the herds were gradually built up, and, despite recurring droughts, they continued to increase until the maximum number of 14,441,309 cattle was attained in 1921. After that year the number dropped continuously till 1929, largely owing to the decline in the oversea demand for frozen beef. It recovered with the expansion of dairying during the depression years to 14,048,671 in 1934, but from that year declined continuously to 1939 when it stood at 12,861,781. The upward movement which commenced in 1940 was continued during 1944 and the total number of cattle (14,183,679) is now at its highest level since 1935. A graph showing the number of cattle in Australia from 1860 appears on page 785.

The numbers of cattle, beef and dairy, in the several States and Territories during each of the last six years are as follows :—

CATTLE : NUMBER.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aus. Cap. Terr.	Total.
1939	2,811,884	1,697,295	6,097,089	318,897	767,680	262,407	899,472	7,057	12,861,781
1940	2,762,653	1,787,597	6,198,798	351,013	799,175	252,484	922,581	5,879	13,080,180
1941	2,769,061	1,922,336	6,210,810	376,654	788,928	259,108	922,308	6,636	13,255,641
1942	2,878,450	1,986,544	6,303,467	399,143	839,731	253,106	892,881	7,432	13,560,754
1943	3,030,546	2,022,892	6,466,316	424,253	831,231	244,681	978,434	6,967	14,005,320
1944	3,143,378	2,013,933	6,524,353	414,997	870,939	230,127	978,569	8,083	14,183,679

Although the proportion is not as high as it has been in the past. Queensland was carrying 46.00 per cent. of the cattle in Australia in 1944. The percentage in each State and Territory during 1944 was :—New South Wales, 22.16; Victoria, 14.19; Queensland, 46.00; South Australia, 2.93; Western Australia, 6.14; Tasmania, 1.62; Northern Territory, 6.90; Australian Capital Territory, 0.06.

A graph showing the distribution of cattle in Australia during 1938–39 is shown in the Official Year Book No. 34, p. 453. A similar graph showing the distribution during 1924–25 is shown in Official Year Book No. 22, p. 660.

3. Comparison with other Countries.—The following table shows the number of cattle in Australia and in some of the principal cattle-raising countries of the world at the latest available date for purposes of comparison :—

CATTLE : NUMBER IN VARIOUS COUNTRIES.

Country.	Year.	Number of Cattle (,000 omitted).	Country.	Year.	Number of Cattle (,000 omitted).
India (British and Native) ..	1936	119,437	Czechoslovakia ..	1937	4,938
U.S.A. ..	1938	66,821	Cuba ..	1935	4,651
U.S.S.R. (Russia) ..	1938	63,200	New Zealand ..	1938	4,506
Brazil ..	1935	40,514	Dutch East Indies	1937	4,414
Argentina ..	1937	33,101	Yugoslavia ..	1938	4,268
China ..	1935	22,647	Romania ..	1937	4,184
Germany ..	1938	19,911	French Equatorial and West Africa	1937	4,073
France ..	1938	15,622	Eire ..	1938	4,050
Australia ..	1939	12,862	Spain ..	1933	3,570
Union of South Africa	1937	11,395	Denmark ..	1938	3,238
Poland ..	1938	10,554	Paraguay ..	1935	3,052
Mexico ..	1930	10,083	Sweden ..	1938	3,036
United Kingdom ..	1938	8,903	Nigeria ..	1937	2,985
Colombia ..	1935	8,337	Rhodesia ..	1937	2,936
Uruguay ..	1937	8,297	Netherlands ..	1938	2,764
Canada ..	1938	8,091	Venezuela ..	1929	2,750
Italy ..	1938	7,667	Sudan (Anglo-Egyptian) ..	1938	2,700
Turkey ..	1938	5,896	Austria ..	1936	2,596
Thailand ..	1938	5,712	Uganda ..	1938	2,582
Kenya ..	1932	5,214	Chile ..	1937	2,460
Tanganyika Territory	1937	5,035	Bolivia ..	1931	2,064
Madagascar ..	1937	4,947			

4. **Imports and Exports of Cattle.**—The products of the cattle-raising industry figure largely in the export trade of Australia, although the export of live cattle has never been large. The number of cattle imported is also small, consisting, as in the case of horses, mainly of valuable animals for stud purposes. Details for the years 1938–39 to 1943–44 are as follows:—

CATTLE : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value.	No.	Value.	No.	Value.
		£A.		£A.		£A.
1938–39 ..	42	9,431	447	9,573	405	142
1939–40 ..	48	5,555	419	7,666	371	2,111
1940–41 ..	15	1,359	263	4,573	248	3,214
1941–42 ..	25	1,313	81	1,275	56	—38
1942–43 ..	14	1,655	336	7,848	322	6,193
1943–44 ..	32	5,893	125	3,362	93	—2,531

NOTE.—The minus sign (—) signifies net imports.

The average value per head of the cattle imported during the last five years was £A117 14s. 6d. while the average value per head of the cattle exported during the same period was £A20 4s.

5. **Cattle Slaughtered.**—The number of cattle slaughtered during each of the years ended June, 1939 to 1944 is given in the following table:—

CATTLE (INCLUDING CALVES) SLAUGHTERED.
(in thousands.)

Year ended June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Terr.	A.C.T.	Total.
1939	(a) 1,136	812	1,284	(b) 160	(b) 127	50	(b) 9	3	3,581
1940	(a) 1,123	737	1,257	(b) 151	(b) 119	48	(b) 6	3	3,444
1941	(a) 902	723	1,137	(b) 156	(b) 115	48	(b) 10	3	3,094
1942	(a) 1,041	754	1,105	(b) 154	(b) 111	51	(b) 10	3	3,229
1943	1,061	753	1,064	177	105	53	41	3	3,257
1944	985	767	961	178	105	53	41	2	3,092

(a) Year ended March.

(b) Year ended December previous.

6. **Production of Beef and Veal.**—Details of the production of beef and veal in each State and Territory are given in the following table for the years indicated:—

PRODUCTION OF BEEF AND VEAL (BONE-IN-WEIGHT) : AUSTRALIA.
(’000 tons.)

Year ended June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Terr.	A.C.T.	Total.
1939	(a) 172	114	207	(b) 24	(b) 28	11	(b) 2	1	559
1940	(a) 173	104	195	(b) 23	(b) 27	11	(b) 1	1	535
1941	(a) 139	100	190	(b) 24	(b) 26	11	(b) 2	1	493
1942	(a) 159	112	200	(b) 23	(b) 25	11	(b) 3	1	534
1943	156	105	201	28	22	11	10	1	534
1944	145	100	187	26	20	11	10	1	500

(a) Year ended March.

(b) Year ended December previous.

7 **Consumption of Beef and Veal.**—For the three pre-war years 1936-37 to 1938-39 the average annual production of beef and veal in Australia was 569,000 tons of which 127,000 tons were exported, leaving a balance of 442,000 tons (or the carcass equivalent of 144 lb. per head per annum) available for consumption as fresh and canned meat.

In order to cope with the increasing demands by Australian and Allied Services based upon Australia and to supply as much beef as possible to meet the import requirements of the United Kingdom it was necessary to introduce from January, 1944 a system of rationing limiting civilian consumption, which has always been very high. As a result, the quantity of beef and veal entering civilian consumption per head decreased from the pre-war average of 144 lb. to 124 lb. in 1943, 92 lb. in 1944 and 87 lb. in 1945.

In the following table details of the production and disposal of beef and veal are given for the period stated.

**PRODUCTION AND DISPOSAL OF BEEF AND VEAL (BONE-IN-WEIGHT):
AUSTRALIA.**

('000 tons.)

Period.	Changes in Stock.	Pro- duction.	Exports.	For Canning.	Consumption by—		Civilian Con- sumption per head per annum.
					Services.	Civilians.	
Average, years							lb.
1936-37 to 1938-39	..	569	127	(a)	..	442	144.2
1943 .. ..	..	517	157	(a)	(a)	360	124.1
1944	+ 11	480	14	81	104	270	92.0
1945	- 2	450	42	88	61	261	86.7

(a) Included with exports.

8. **Exports of Frozen Beef.**—The export of frozen meat from Australia dates from about 1881, and since that year the trade has grown considerably, the quantities and values exported during each of the five years ended 1943-44 being as follows:—1939-40, 273,892,251 lb., £4,619,058; 1940-41, 194,576,226 lb., £3,680,940; 1941-42, 116,340,293 lb., £2,476,172; 1942-43, 22,419,121 lb., £555,285 and 1943-44, 46,266,506 lb., £1,212,311. Chilled beef is included in the foregoing. In normal times the largest purchaser of Australian beef is the United Kingdom, which during 1938-39 took £3,901,691, or about 90.2 per cent. of the total shipments. Other countries importing Australian beef were, in order of importance, Egypt, Malaya (British), Malta, Philippine Islands and Hong Kong; these countries, together with the United Kingdom, accounted for 98.6 per cent. of the total value of export.

In view of the preference overseas for chilled beef the Australian beef industry was at a serious disadvantage until investigations proved that beef could be successfully transported from Australia to United Kingdom in a chilled condition. Trial shipments of 254,000 lb. in 1932-33 and 1,515,000 lb. in 1933-34 were made, and the exports in subsequent years increased as follows:—1934-35, 21,570,928 lb., £322,239; 1936-37 41,869,695 lb., £608,175; and 1938-39, 58,963,009 lb., £988,148. However the advent of war seriously affected the export trade in chilled beef, which decreased as follows:—1939-40, 12,786,859 lb., £206,353; 1940-41, nil; 1941-42, 1,697 lb., £70 and 1942-43, 1,843 lb., £69, and 1943-44, nil.

9. **Contract for Purchase of Exportable Surplus.**—A long term contract has been negotiated between the Governments of the Commonwealth and the United Kingdom for the purchase of Australia's exportable surplus of beef and veal for 4 years ending 30th September, 1948. Fuller particulars will be found in Chapter XXVIII. "Miscellaneous".

10. Imports of Chilled and Frozen Beef into the United Kingdom.—The following statement shows the quantities and values of chilled and frozen beef imported into the United Kingdom during each of the five years 1939 to 1943. Later details are not available.

IMPORTS OF CHILLED AND FROZEN BEEF IN QUARTERS AND SIDES INTO THE UNITED KINGDOM.

Country of Origin.	1939.	1940.	1941.	1942.	1943.
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CHILLED—QUANTITY.

	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
Brazil	500,982
Uruguay	428,076
Argentina	5,225,350
Australia	430,396	..	..	..	..
Other British Countries ..	439,344	..	..	..	..
Total Chilled ..	7,024,148	..	..	..	..

CHILLED—VALUE.

	£	£	£	£	£
Brazil	916,904	..	..	..	..
Uruguay	775,465	..	..	..	..
Argentina	10,338,878	..	..	..	..
Australia	767,081	..	..	..	..
Other British Countries ..	763,112	..	..	..	..
Total Chilled ..	13,561,440	..	..	..	..

FROZEN—QUANTITY.

	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
Brazil	3,583	998,810	247,254	..	827
Uruguay	116,352	678,350	489,196	88,525	165,080
Argentina	1,746,760	5,291,230	3,428,616	2,371,179	2,245,084
Other Foreign Countries ..	511	17,447	1,268	1,855	5,046
Australia	1,317,318	1,521,013	715,062	102,131	16,033
New Zealand	230,727	678,397	320,369	11,395	2,073
Other British Countries ..	31,960	165,928	80,825	4,833	4,510
Total Frozen ..	3,447,211	9,351,175	5,282,590	2,579,918	2,438,653
Grand Total (Chilled and Frozen) ..	10,471,359	9,351,175	5,282,590	2,579,918	2,438,653

FROZEN—VALUE.

	£	£	£	£	£
Brazil	7,415	2,415,447	633,865	..	2,191
Uruguay	233,888	1,568,390	1,246,478	261,879	449,959
Argentina	3,741,428	12,994,851	8,841,682	7,729,393	6,165,720
Other Foreign Countries ..	935	35,110	3,405	3,107	16,535
Australia	2,139,052	2,876,415	1,542,175	238,992	47,354
New Zealand	332,519	1,317,497	669,230	21,698	5,261
Other British Countries ..	68,068	360,097	180,847	11,720	13,372
Total Frozen ..	6,523,305	21,567,807	13,117,742	8,266,789	6,700,392
Grand Total (Chilled and Frozen) ..	20,084,745	21,567,807	13,117,742	8,266,789	6,700,392

§ 4. Sheep.

1. **Initiation of the Pastoral Industry.**—Fortunately for Australia, the suitability of its climate and general conditions for the production of a high class of wool were, at an early date in the history of its settlement, surmised and tested by Captain Macarthur, one of the pioneer sheep-breeders of New South Wales. To the energy of this enterprising pastoralist is due in large measure the rapid and extremely satisfactory development of Australia as a producer of fine wool, and, while it would appear that the introduction of the merino sheep into Australia was not due to Macarthur, a great deal of the credit for having successfully established the pastoral industry in Australia must certainly be his.

2. **Distribution throughout Australia.**—With the exception of a short period in the early sixties, when the flocks of Victoria outnumbered those of New South Wales, the latter State has occupied the premier position in sheep-raising, depasturing about one half of the sheep of Australia.

A graph showing the distribution of sheep in Australia during 1938-39 is shown in the Official Year Book No. 34, p. 452. A similar graph showing the distribution of sheep during 1924-25 was published in Official Year Book No. 22, p. 659.

Fluctuations in the number of sheep recorded for each year in Australia from 1860 onwards may be seen from the graph on page 785. Five marked periods of decline depleted the numbers at successive intervals, but these losses were made up rapidly. In each of the years 1925 to 1945 the sheep flocks have exceeded 100 millions, reaching 125,189,129 in 1942, the greatest number recorded in Australia. At no previous period have such large numbers been depastured continuously, and the development has taken place despite an average annual slaughter of approximately twenty-five million sheep and lambs for the meat trade.

Preliminary figures for 1945 show a sharp decrease to 105 million. This represents a loss from all causes, other than slaughtering, of about 18 million sheep and was attributable to the severe drought conditions which occurred during the year ended March, 1945. Preliminary figures for 1946 show a further decrease to 96 million.

The numbers of sheep in the several States and Territories for each year from 1939 to 1944, are shown in the following table:—

SHEEP : NUMBER.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	N.T.	A.C.T.	Total.
1939	43,876,663	47,007,352	23,158,569	9,936,586	9,177,531	2,625,690	29,901	245,540	111,057,832
1940	54,372,172	48,251,571	21,100,031	9,910,579	9,577,133	2,677,120	38,587	259,168	119,005,301
1941	55,708,000	50,112,397	23,036,099	10,203,423	9,716,272	2,682,375	33,703	281,791	126,694,025
1942	56,737,000	50,598,201	25,196,245	10,245,894	9,722,780	2,398,201	28,245	262,563	125,189,129
1943	56,043,598	49,614,040	25,650,231	10,370,565	10,424,385	2,226,906	34,603	250,344	124,614,672
1944	56,837,300	49,220,457	23,255,584	10,359,669	11,012,936	2,187,799	25,575	274,642	123,173,962

3. **Proportion in the Several States and Territories.**—Apart from the effect of drought the relative number of sheep depastured in the different States remains fairly constant.

The percentage distribution in 1944 was:—New South Wales, 46.15; Victoria, 15.60; Queensland, 18.88; South Australia, 8.41; Western Australia, 8.94; Tasmania, 1.78; Northern Territory, 0.02; Australian Capital Territory, 0.22 per cent.

4. **Comparison with other Countries.**—As regards the size of its flocks and the quantity and quality of wool produced, Australia has long occupied a leading position amongst the sheep-raising countries of the world. The following figures, taken mainly from the *Year Book of the International Institute of Agriculture*, represent the latest returns available in regard to the number of sheep in the principal wool-producing countries. The leading position is held by Australia with 111 million, followed by

the U.S.S.R. (Russia) with 85 million, the United States of America with 54 million, Argentina with 44 million and India (British and Native) with 42 million. On account of drought the number of sheep in the Union of South Africa declined from 46 million in 1933 to 36 million in 1935, but the number had increased to 41 million in 1938. In Argentina, sheep flocks also declined from 44.4 million in 1930 to 38 million in 1935, but the number recorded in 1937 was 44 million. During the years 1925 to 1929 the sheep flocks of the U.S.S.R. exceeded those of Australia. The maximum number recorded was 130 million in 1928, but after that year a remarkable decline took place and the number depastured in 1934 was only 46,848,000. It was proposed under the second Five Year Plan to increase the number to 85 million by 1937, but this number had not quite been reached by 1938. Russian sheep are mainly coarse-woolled, and the wool is of inferior quality, but the Soviet Government is making efforts to improve it. In a classification of the wool production in 1934, 10 per cent. was classed as fine wool, 16 per cent. as semi-fine quality, and 74 per cent. as coarse wool. In 1938 the production of fine wool had increased to 14 per cent. and semi-fine to 39 per cent., while the proportion of coarse wool had declined to 47 per cent. Production of wool in the U.S.S.R. amounted to about 303 million lb. during 1938, representing an average weight of fleece shorn of more than 3 lb.

SHEEP : NUMBER IN VARIOUS COUNTRIES.

Country.	Year.	No. of Sheep (,000 omitted).	Country.	Year.	No. of Sheep (,000 omitted).
Australia	1939	111,058	Italy	1938	9,467
U.S.S.R. (Russia) ..	1938	84,500	Bulgaria	1934	8,840
U.S.A.	1938	53,762	Greece	1937	8,451
Argentina	1937	43,740	Algeria	1937	5,965
India (British and Native)	1936	42,060	Chile	1936	5,749
Union of South Africa ..	1938	41,150	Germany	1938	5,677
New Zealand	1938	32,379	Iraq	1938	5,514
United Kingdom	1938	26,775	Bolivia	1931	5,232
China	1935	20,957	Mexico	1930	3,674
Spain	1933	19,093	Canada	1938	3,415
Uruguay	1932	17,931	Poland	1938	3,411
Turkey	1937	16,449	Tunis	1937	3,383
Iran	1936	13,615	Portugal	1934	3,274
Brazil	1935	12,645	Kenya	1930	3,243
Rumania	1937	12,372	Eire	1938	3,197
Peru	1929	11,209	Somaliland	1938	3,000
French Equatorial and West Africa ..	1937	11,014	Sudan (Anglo-Egyptian)	1938	2,500
French Morocco	1938	10,162	Syria and Lebanon ..	1938	2,129
Yugoslavia	1938	10,137	Manchuria	1937	1,966
France	1938	9,872	Nigeria	1938	1,796
			Tanganyika Territory ..	1937	1,646

5. Oversea Imports and Exports of Sheep.—As in the case of cattle, the oversea exports of live sheep from Australia are of comparatively little importance. During the last five years the principal consignments of ordinary sheep have been made to Malaya (British) from Western Australia. On 27th November, 1929, the export of stud sheep was prohibited, except with the approval of the Minister for Trade and Customs. Stud sheep, however, were being exported in increasing numbers up to the outbreak of war in the Pacific, and shipments in 1939-40 amounted to 23,329 sheep valued at £79,955 compared with 186 valued at £2,700 in 1943-44. The chief countries to which sheep were consigned in 1939-40 were New Zealand, South Africa, Japan and Korea. The

ordinary flock sheep exported from Australia were, for the most part, consigned to Malaya and the Pacific Islands. The following table shows the imports and exports of stud and flock sheep for the years 1938-39 to 1943-44 :—

SHEEP : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value.	No.	Value.	No.	Value.
		£A.		£A.		£A.
1938-39 ..	5,288	44,961	72,027	84,366	66,739	39,405
1939-40 ..	6,990	54,088	79,375	112,596	72,385	58,508
1940-41 ..	1,944	12,678	88,209	99,550	86,265	86,872
1941-42 ..	311	4,931	65,061	54,211	64,750	49,280
1942-43 ..	158	2,826	5,265	9,095	5,107	6,269
1943-44 ..	258	12,768	7,682	10,946	7,424	1,822

NOTE.—The minus sign (—) signifies net imports.

6. Sheep Slaughtered.—The number of sheep slaughtered in the several States during each of the years ended June, 1939 to 1944 were as follows :—

SHEEP (INCLUDING LAMBS) SLAUGHTERED.

(in thousands.)

Year ended June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Total.
1939..	(a) 6,323	7,728	1,121	(b) 2,007	(b) 1,318	377	..	26	18,900
1940..	(a) 6,900	6,991	1,232	(b) 2,094	(b) 1,302	461	..	26	19,006
1941..	(a) 8,168	8,373	1,275	(b) 2,164	(b) 1,332	477	(b) 2	31	21,822
1942..	(a) 8,128	8,635	1,499	(b) 2,071	(b) 1,333	552	(b) 2	38	22,258
1943..	9,279	9,771	2,088	2,297	1,531	603	2	42	25,573
1944..	9,667	9,286	2,228	2,830	1,955	615	2	49	26,632

(a) Year ended March.

(b) Year ended December previous.

7. Production of Mutton and Lamb.—Details of the production of mutton and lamb in each State and Territory are shown below :—

PRODUCTION OF MUTTON AND LAMB.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1938-39	100,666	136,130	20,456	34,052	22,214	6,329	5	440	320,292
1939-40	109,155	122,914	22,247	35,431	22,208	7,710	7	432	320,104
1940-41	124,254	145,952	24,316	36,368	22,720	7,866	40	518	362,034
1941-42	125,403	151,763	26,227	35,292	23,094	9,274	38	635	371,726
1942-43	153,870	149,235	34,105	38,711	26,519	9,921	38	747	413,146
1943-44	156,901	145,786	36,362	45,933	32,377	10,561	36	788	428,744

8. Consumption of Mutton and Lamb.—For the three pre-war years 1936-37 to 1938-39 the annual production of mutton and lamb averaged 320,000 tons of which 90,000 tons were exported leaving a balance of 230,000 tons (or the carcass equivalent of 74.9 lb. per head per annum) available for consumption.

During the war the demand for meat by Australian and Allied Services and the desire to maintain, as far as possible, exports to the United Kingdom, necessitated the restriction of local consumption by the introduction, in January, 1944, of a system of rationing.

As the service and export demand was principally for beef this class of meat was in shorter supply to civilians than was mutton or lamb. As a result the coupon rating for beef fixed under the civilian ration scale was more restrictive, and had the effect of increasing the quantity of mutton and lamb entering civilian consumption to a level approximating that of beef.

The consumption of mutton and lamb per head rose from the pre-war average of 74.9 lb. to 91.7 lb. in 1943, to 92 lb. in 1944, and to 85.1 lb. in 1945. In the following table details of the production and disposal of mutton and lamb are given for the periods stated:—

**PRODUCTION AND DISPOSAL OF MUTTON AND LAMB (BONE-IN WEIGHT):
AUSTRALIA.**

('000 tons.)

Period.	Changes in Stock.	Pro- duction.	Exports.	For Canning and Dehydra- tion.	Consumption by—		Civilian Con- sumption per head per annum.
					Services.	Civilians.	
Average years							lb.
1936-37 to 1938-39	..	320	90	..	..	230	74.9
1943 .. ..	..	416	150	..	(a)	266	91.7
1944	+ 6	419	77	42	24	270	91.9
1945	- 21	322	34	32	21	256	85.1

(a) Included with exports.

9. **Exports of Frozen Mutton and Lamb.**—The export trade in mutton and lamb preserved by cold process expanded rapidly to 1913 when 205 million lb. were shipped. Progress was interrupted during the 1914-19 War and, owing probably to high wool prices, the exports of mutton and lamb for a number of years after that war were considerably less than earlier shipments. Exports commenced to rise again in 1929-30, and from that year onwards they have continued to expand almost uninterruptedly. Formerly the shipments consisted largely of frozen mutton, but in 1923-24 lamb supplanted mutton, and the exports of lamb have been responsible for the increase in shipments of mutton and lamb during the past ten years.

The quantity and value of the shipments of mutton and lamb during each of the six years ended 1943-44 were as follows:—Lamb, 1938-39, 158,332,714 lb., £4,393,773; 1939-40, 201,039,375 lb., £5,353,874; 1940-41, 219,954,539 lb., £5,864,519; 1941-42, 164,300,962 lb., £4,498,081; 1942-43, 184,240,389 lb., £5,182,558 and 1943-44, 141,559,299 lb., £4,141,935. Mutton, 1938-39, 28,155,757 lb., £413,693; 1939-40, 47,627,848 lb., £728,510; 1940-41, 18,970,895 lb., £277,964; 1941-42, 10,638,918 lb., £172,712; 1942-43, 19,441,131 lb., £313,328 and 1943-44, 30,010,466 lb., £501,668.

As with beef, the principal customer in this trade is the United Kingdom, which absorbed 91 per cent. of the total quantity exported from Australia during 1943-44.

10. **Contract for Purchase of Exportable Surplus.**—A long term contract covering the four years ending 30th September, 1948 has been completed between the Governments of the Commonwealth and the United Kingdom for the purchase of Australia's surplus mutton and lamb. Particulars will be found in Chapter XXVIII. "Miscellaneous".

11. **Imports of Frozen Mutton and Lamb into the United Kingdom.**—The quantities and values of frozen mutton and lamb imported into the United Kingdom from various countries for the five years ended 1943 are given in the following table. Particulars for later years are not available.

IMPORTS OF FROZEN MUTTON AND LAMB INTO THE UNITED KINGDOM.

Country of Origin.	1939.	1940.	1941.	1942.	1943.
MUTTON—QUANTITY.					
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
United States of America ..	..	..	333	759	235,805
Chile	58,790	96,715	14,875	95,811	125,026
Uruguay	11,893	47,689	11,438	835	7,356
Argentina	104,664	204,003	181,383	247,812	199,792
Other Foreign Countries ..	1,846	4,124	330	..	28
Total, Foreign ..	177,193	352,531	208,359	345,217	568,007
Australia	322,908	318,074	61,050	54,817	114,957
New Zealand	815,912	1,741,899	706,793	695,233	426,110
Other British Countries ..	18,620	8,127	191	723	490
Total, British ..	1,157,440	2,068,100	768,034	750,773	541,557
Grand Total ..	1,334,633	2,420,631	976,393	1,095,990	1,109,564

MUTTON—VALUE.					
	£	£	£	£	£
United States of America ..	..	..	1,052	2,274	693,053
Chile	100,978	204,477	33,735	177,637	299,314
Uruguay	20,527	114,745	27,575	2,011	18,462
Argentina	185,299	468,395	429,398	587,164	492,507
Other Foreign Countries ..	3,175	8,832	1,425	..	73
Total, Foreign ..	309,979	796,449	493,185	769,086	1,503,409
Australia	490,512	613,125	132,601	121,584	285,291
New Zealand	1,291,327	3,385,874	1,540,983	1,564,393	1,092,766
Other British Countries ..	37,242	14,116	457	1,680	1,166
Total, British ..	1,819,081	4,013,115	1,674,041	1,687,657	1,379,223
Grand Total ..	2,129,060	4,809,564	2,167,226	2,456,743	2,882,632

LAMB—QUANTITY.					
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
United States of America ..	17	..	..	14,682	731,310
Chile	137,256	110,728	2,689	72,960	117,623
Uruguay	165,215	172,776	101,397	90,142	197,063
Argentina	817,656	992,427	783,510	1,126,381	1,503,308
Other Foreign Countries ..	32,031	43,968	..	..	43,867
Total, Foreign ..	1,152,175	1,310,899	887,596	1,304,165	2,593,171
Australia	1,305,702	1,396,481	1,599,530	1,401,318	1,696,006
New Zealand	2,736,479	2,909,606	2,886,056	3,579,195	2,922,963
Other British Countries ..	5,759	4,130	4,065	180	4
Total, British ..	4,047,940	4,310,217	4,489,651	4,980,693	4,618,973
Grand Total ..	5,200,115	5,630,116	5,377,247	6,284,858	7,212,144

IMPORTS OF FROZEN MUTTON AND LAMB INTO THE UNITED KINGDOM—
continued.

Country of Origin.	1939.	1940.	1941.	1942.	1943.
LAMB—VALUE.					
	£	£	£	£	£
United States of America ..	59	..	..	60,195	2,997,397
Chile	350,924	361,628	8,610	240,838	403,505
Uruguay	442,169	486,650	333,694	301,007	708,439
Argentina	2,203,637	2,867,364	2,606,697	3,852,508	5,481,628
Other Foreign Countries ..	86,945	129,755	..	..	144,351
Total, Foreign ..	3,083,734	3,845,397	2,949,001	4,455,148	9,735,320
Australia	3,647,984	3,795,821	5,404,843	4,851,948	6,740,778
New Zealand	8,441,400	9,456,779	10,750,577	14,681,115	12,630,437
Other British Countries ..	16,673	13,161	14,201	737	24
Total, British ..	12,106,057	13,265,761	16,169,621	19,533,800	19,371,239
Grand Total ..	15,189,791	17,111,158	19,118,622	23,988,948	29,106,559

§ 5. Wool.

1. **General.**—Australia is the leading wool-growing country in the world. With less than one-sixth of the world's sheep Australia produces one-quarter of the world's supply. Moreover, half of the world's production of fine-quality merino wool is produced in Australia. The bulk of the production is exported, but with the greater activity of Australian woollen mills the quantity used locally is increasing: the amount so used represented 10 per cent. of the total production in 1943-44 compared with 7 per cent. in 1938-39.

The important position held by Australia among the principal sheep and wool producing countries of the world is more clearly shown in the following table:—

SHEEP AND WOOL : PRINCIPAL PRODUCING COUNTRIES.

Country.	Year.	No. of Sheep (in millions).	Wool Production (in millions of lb., greasy).
Australia	1938-39	111.1	984
United States of America ..	1938-39	53.7	458
Argentina	1937-38	43.7	389
New Zealand	1938-39	32.4	329
U.S.S.R. (Russia)	1938-39	84.5	303
Union of South Africa ..	1938-39	41.2	264

2. **Greasy and Scoured Wool.**—Whether the weight of the wool clip should be stated as “in the grease” or as “scoured and washed” is a matter which seriously affects comparisons between the clips of different seasons and of different countries. The quantity of grease and other extraneous matter in a fleece differs, not only between

countries, but between districts in the same country. It fluctuates with the vagaries of the season, and with the breed and the condition of the sheep. There is, moreover, no clearly defined standard in regard to the clean content of wool described as scoured and washed.

A committee of experts in a report to the Central Wool Committee estimated in 1940 that the clean scoured wool content of the total production of Australia averaged between 51 and 53 per cent. of its greasy weight.

Wool scoured in Australia by wool-scouring works, however, yields only about 46 per cent. because the grade of greasy wool treated locally for export as scoured includes a large proportion of dirty and low-grade wool.

The quantity of scoured and washed Australian wool exported during the five years ended 1943-44 was approximately 15 per cent. of the total wool exports regarded as "greasy".

3. **Production.**—The bulk of the Australian wool production is shorn from live sheep; approximately 6 per cent. is obtained by fellmongering and about 5 per cent. is on skins exported. Statistics of wool production are compiled from data received from growers, fellmongers, etc. The following table gives the production for the four years 1940-41 to 1943-44 compared with 1938-39. Particulars of the gross value of wool produced in Australia are also shown; for 1938-39 these values are based upon the average price of greasy wool realized at auction in the principal markets of Australia, and for 1940-41 to 1943-44 upon the average appraised value plus certain adjustments as computed by the State Statisticians.

WOOL (AS IN THE GREASE) : TOTAL PRODUCTION.

State.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
	'000. lb.	'000. lb.	'000. lb.	'000. lb.	'000. lb.
New South Wales ..	437,141	536,908	547,000	497,538	537,410
Victoria ..	165,829	187,831	212,919	212,325	196,415
Queensland ..	(b) 179,459	(b) 214,704	204,119	213,966	194,355
South Australia ..	102,888	106,647	105,124	108,637	115,464
Western Australia (b) ..	78,802	76,170	78,500	99,231	105,226
Tasmania ..	17,519	17,078	16,985	17,256	17,925
Northern Territory (c) ..	35	308	308	308	308
Australian Capital Territory	1,909	2,128	2,203	1,905	1,913
Total—Quantity ..	983,582	1,141,774	1,167,158	1,151,166	1,169,016
	£	£	£	£	£
Value (a) ..	42,042,734	63,014,009	64,701,719	73,016,917	75,123,549

(a) Subject to revision.

(b) For year ended previous December.

(c) Estimated.

4. **Care Needed in Comparing Clips.**—In comparing successive clips allowance must be made for the circumstance that, owing to climatic or other conditions, the time of shearing may be so far delayed in some areas that one clip may include almost thirteen months' growth of wool, while the succeeding one may include little more than eleven months' growth.

5. **World's Wool Production.**—The following table gives details of the world's wool production at the latest available date and shows the importance of Australia as a wool-producing country. Of a total production of 3,991 million lb. in 1938-39, Australia produced 984 million lb., or 24.7 per cent. The share of the British Empire in world production during the same year was estimated at 1,849 million lb., or 46.3 per cent.

WOOL : WORLD'S PRODUCTION.

(In millions of lb., "greasy" basis.)

Countries.	Average Five Years 1909-13.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39
Australia	741.4	1,015.4	971.1	982.8	1,023.4	983.6
U.S.A.	314.1	451.0	452.7	448.6	454.6	457.7
Argentina	358.7	370.0	359.0	379.0	380.0	394.0
New Zealand	198.5	265.0	304.0	303.5	297.0	329.0
U.S.S.R. (Russia) ..	380.0	128.0	158.4	202.1	259.0	303.0
Union of South Africa	165.9	219.0	250.0	277.0	246.0	264.0
Uruguay	157.0	112.0	110.0	114.0	110.0	114.0
China (a)	100.0	110.0	110.0	110.0	110.0	110.0
United Kingdom ..	134.0	115.0	109.0	108.0	107.0	110.0
India (a)	100.0	100.0	100.0	100.0	100.0	100.0
Turkey	118.0	35.4	41.1	48.9	64.5	69.0
Spain	72.0	73.0	66.0	66.0	60.0	60.0
France	80.7	52.8	52.7	53.9	55.1	54.4
Rumania	13.2	43.0	42.9	42.9	45.0	48.5
Morocco (French) ..	14.9	35.6	40.8	40.7	47.8	44.7
Germany	52.0	32.2	36.3	40.1	43.3	44.5
Brazil	35.0	36.4	37.5	37.5	43.2	(a)43.0
Iran	12.1	40.0	37.5	37.5	35.3	40.0
Yugoslavia	25.4	31.0	32.2	33.6	31.5	35.5
Chile	17.4	37.0	35.2	35.7	30.0	33.0
Italy	55.0	36.0	30.0	30.0	30.0	33.0
Bulgaria	23.7	21.3	21.1	20.4	20.7	21.2
Canada	11.2	19.5	19.4	18.9	19.0	18.8
Eire .. ..	..	17.0	16.5	17.6	16.4	17.9
Algeria	35.2	15.2	16.1	17.6	17.2	16.4
Basutoland .. ..	..	5.1	7.3	6.0	4.7	6.9
Falkland Islands ..	..	4.0	4.2	4.0	4.6	3.6
Other Countries ..	71.2	201.4	214.0	222.3	215.9	234.8
Total	3,286.6	3,621.3	3,675.0	3,798.6	3,877.2	3,990.5

(a) Estimated.

6. War-time Contracts.—(i) *Wool*. After the outbreak of war in September, 1939, negotiations were concluded between the Government of the Commonwealth and of the United Kingdom whereby the latter contracted to purchase the entire wool clip of Australia for the duration of the war and one full clip thereafter. The price per lb. at store in Australia was fixed at 10½d. sterling, or 13.4375d. in Australian currency for the 1939-40 to 1941-42 clips. For the 1942-43 and later clips the United Kingdom Government increased the price by 15 per cent., thus bringing the price to 15.453125d. Australian currency, and provision was made for an equal division between the two Governments of any profits derived from the sale of the wool for use outside the United Kingdom. In addition, an amount not exceeding ¾d. sterling or ¾d. (Aust.) was paid by the United Kingdom Government to cover all costs from store at port of oversea shipment to ship. The agreement provided that sufficient quantities of wool be retained in Australia for domestic use. The administration of the scheme in Australia was controlled by the Central Wool Committee assisted by a Committee in each State. These Committees consisted of representatives of growers, brokers, buyers and manufacturers.

Separate agreements were negotiated by the Governments of the United Kingdom, Union of South Africa and New Zealand.

(ii) *Sheepskins*. Under the contract negotiated in April, 1940 between the Governments of the Commonwealth and of the United Kingdom, the latter agreed to purchase, in connexion with the war, the exportable surplus of Australian woolled sheepskins. The scheme was administered by the Central Wool Committee. The exportable surplus was determined by competition in the open market between fellmongers and export packers licensed by the Central Wool Committee. The quantity appraised during each season was as follows:—

SHEEPSKIN APPRAISEMENTS: AUSTRALIA.

Season.	Number of—		Net Weight.	Appraised Values.
	Bales.	Skins.		
	No.	No.	lb.	£
1939-40	16,124	1,604,631	11,012,544	352,592
1940-41	72,643	7,645,280	49,454,306	1,501,557
1941-42	69,274	7,566,080	47,788,050	1,350,558
1942-43	73,701	7,794,507	50,911,840	1,692,955
1943-44	84,001	8,897,735	58,245,326	1,828,923
1944-45	82,296	9,433,549	56,873,508	1,731,483

Further particulars of these war-time contracts appear in Chapter XXVIII. "Miscellaneous".

7. *Wool Appraisements*.—Details of the quantity and value of wool appraised by the Central Wool Committee during 1939-40 to 1944-45 are given in the following table. The quantities include the production for the years shown plus any unappraised wools carried forward from previous years.

WOOL APPRAISEMENTS: AUSTRALIA.

Year ended June—	Greasy.		Scoured.		Total Appraised Value.	Average Value per lb. Greasy.
	Quantity.	Appraised Value.	Quantity.	Appraised Value.		
	lb.	£	lb.	£	£	d.
1940 (a) ..	1,066,236,666	55,880,334	45,828,781	3,961,945	59,842,279	12.403
1941 ..	990,833,406	50,519,740	53,205,679	4,731,411	55,251,151	12.085
1942 ..	1,034,617,098	53,681,110	55,853,496	4,790,795	58,471,905	12.242
1943 ..	1,048,049,364	61,686,427	51,369,110	4,990,608	66,677,035	13.906
1944 ..	1,044,227,505	61,069,588	54,020,785	5,186,541	66,856,129	13.025
1945 ..	883,767,084	51,605,152	47,314,691	4,469,377	56,074,529	13.755

(a) Period September, 1939—June, 1940.

8. *Australian Wool Realization Commission*.—(i) *General*. The accumulation of Dominion wool in the hands of the United Kingdom Government as an outcome of the war-time arrangements and the disposal of these stocks concurrently with future clips were matters for discussion by a conference of officials and experts from the United Kingdom, the Commonwealth of Australia, the Dominion of New Zealand, and the Union of South Africa, held in London in April-May, 1945. Total stocks of United Kingdom-owned wool at 30th June, 1945 were estimated at 3,315,000,000 lb. actual (greasy and scoured) of which 3,245,000,000 lb. were of Dominion origin, the Australian share being 2,060,000,000 lb., or 63 per cent.

This stock approximates two years' consumption and, on reasonably optimistic assumptions, the complete disposal of the stock in conjunction with current clips would occupy a period of 12 or 13 years. It was decided, therefore, that the only sound method

of handling this gigantic task was by means of a partnership between the countries concerned, under which the old wool would be marketed and the marketing of the current clip supported throughout the period of disposal of stocks. A return to the auction system of marketing was favoured, provided it was continued with a floor price scheme to minimize fluctuations which occurred under pre-war auctions. Current clips would thus be offered at auction as in the past and, in addition, selections from stock would be marketed with the aim of maximizing total sales and gradually liquidating stocks. To ensure that stability of wool prices would be achieved, a reserve price appropriate to type, and governed by the general trend of prices, and at which the wool would be bought in if commercial bidding did not attain the appropriate level, would be agreed upon.

(ii) *United Kingdom-Dominion Wool Disposals Limited*. The formation, by the four Governments, of a Joint Organization under the title of "United Kingdom-Dominion Wool Disposals Limited" (commonly referred to as "J.O.") was, therefore, undertaken for the purposes of buying, holding, and selling wool on behalf of the United Kingdom and the Dominion Governments concerned. As part of the plan, the organization is required:—

- (a) to determine total quantities of wool to be offered from time to time concurrently in the Dominions and elsewhere, to be made up of all new clip wool and an appropriate proportion of wool from the organization's stock;
- (b) to prepare schedules of reserve prices at which the organization will itself be willing to acquire wool;
- (c) to lift from the market such quantities of new wool as cannot be sold at these reserve prices;
- (d) to hold and dispose of stocks as the agent of the Governments concerned and where necessary, to acquire and own stores, plant and equipment for this purpose;
- (e) to facilitate the sale of wool in every way possible, with a view to stimulating demand.

The stock of Dominion-grown wool in the ownership of the United Kingdom Government at 31st July, 1945 was transferred to the joint ownership of the United Kingdom Government and the Dominion Government concerned, and all wool subsequently acquired under the scheme will be in the joint ownership of the United Kingdom and the Dominion concerned.

It is the obligation of the Joint Organization to recommend to the Governments the initial level of reserve prices and any major changes which may thereafter be necessary. The structure of reserve selling prices will be built upon the basis of "c.i.f. Europe" with a corresponding schedule of reserve prices "ex Store" in the Dominions.

Reserve prices will be calculated for the London market as well as Dominion markets and, as soon as practicable, growers will be free to forward wool to London for sale there alongside wool from the Joint Organization's stocks. If, at auction, no buyer is forthcoming at the reserve price or higher, the lot will be passed in and taken over by the Joint Organization at the auction reserve price, subject to the grower's right of withdrawal.

In order to facilitate and expand the consumption of wool the Joint Organization will maintain close contact (a) with the appropriate bodies interested in furthering the rehabilitation of the wool textile industry in consuming countries, and in securing the replacement and improvement of machinery, (b) with the International Wool Secretariat and (c) with all institutions concerned with uses of wool and with the reduction of costs of production, processing, manufacture and distribution of wool. The Joint Organization will give attention in general to the removal of any obstacles to consumption.

The Joint Organization has been incorporated in England as a private registered company, the voting shares being held as follows:—four by nominees of the United Kingdom Government, two by nominees of the Government of Australia and one each by nominees of the New Zealand and South African Governments. An active subsidiary has been formed in each Dominion to act on behalf of the Joint Organization in regard to all the operations of the Joint Organization in that Dominion.

The Directors of the principal Company consist of an independent Chairman appointed by the four Governments in agreement, four Directors appointed by the United Kingdom Government, two by the Government of Australia, and one each by the Governments of New Zealand and South Africa. In addition the Chairman of each of the Dominion Subsidiaries will be *ex officio* Directors of the principal Company without additional voting power.

(iii) *The Dominion Subsidiaries.* The Subsidiary in each of the Dominions is charged with the conducting of the operations of the principal Company in the Dominion in accordance with its policy and decisions. The function of each Subsidiary will be :—

- (a) to hold wool in the Dominion as the agent of the principal Company ;
- (b) to sell wool from stocks in the Dominions, and to arrange for the regulation of sales of current clips by auction ;
- (c) to assess on the basis laid down by the principal Company the appropriate reserve prices for the individual lots of wool (from stocks or current clips), being offered for sale ;
- (d) to take up wool offered at auction for which the reserve price or better is not offered by a commercial buyer ;
- (e) to conduct the financial operations of the principal Company in the Dominion ;
- (f) to furnish to the principal Company annual reports on its activities, including statements of its accounts and information regarding its purchases, sales and stocks.

(iv) *The Financial Plan.* Representatives of the four Governments will meet prior to the opening of each wool year and at such other times as may be required, to agree upon the general level of reserve prices in the light of the advice of the Joint Organization.

Under the financial plan, the United Kingdom and the Dominion concerned will each take up 50 per cent. of the original capital represented by the opening stock of wool grown in that Dominion to be handed over to the Joint Organization, that opening stock being taken in by the Joint Organization at its original cost, including f.o.b. payments less the amounts accumulated in the divisible profits accounts, which amounts, except in the case of South Africa, are estimated fully to cover depreciation of that stock. The balances in the divisible profits accounts are thus used to write down the opening stocks taken in by the Joint Organization. Payment of the Dominions' share of the original capital is to be made in four annual instalments. Towards these instalments will be applied the Dominions' shares of the proceeds of sales by the Joint Organization and of the net profit during the interim period 1945-46. Each Dominion and the United Kingdom will share equally in the provision of any further capital required by the Joint Organization during the operation of the scheme for payment for bought-in new wool of that Dominion.

Operating expenses will be borne equally between the industry and the Joint Organization, the share of the industry being paid by the Dominion Governments primarily from the proceeds of a contributory charge on all sales of new clip wool. The share of the Joint Organization will be met by deduction from the proceeds of sales by the Joint Organization before application to capital repayment.

The ultimate balance of profit or loss arising from the transactions of the Joint Organization in the wool of any Dominion will be shared equally between the United Kingdom and the Government of that Dominion.

(v) *The Australian Subsidiary.* Pursuant to the provisions of the Wool Realization Act (No. 49 of 1945) the Australian subsidiary, known as the Australian Wool Realization Commission, was established. This Commission comprises a Chairman and an Executive Member (the two administrators of the Plan), four growers (two representative of the Australian Woolgrowers' Council and two representative of the Wool Producers' Federation), one representative of the Federated Storemen and Packers' Union and two other persons chosen for their knowledge of the marketing of wool.

The Act also gives power to the Commission to appoint whatever advisory or technical committees it considers necessary, thus providing a formal basis for full co-operation between the Commission and the various facets of the trade.

(vi) *The Contributory Charge.* Associated legislation, viz., the Wool (Contributory Charge) Act 1945 and the Wool (Contributory Charge) Assessment Act 1945 provide for a contributory charge to be imposed on all wool—

- (a) produced in Australia; and
- (b) on or after a date to be fixed by proclamation—
 - (i) sold by a broker at auction or otherwise;
 - (ii) purchased by a manufacturer;
 - (iii) subjected by a manufacturer (whether or not he is the producer or owner of the wool) to a process of manufacture; or
- (iv) exported from Australia;

the rate of the charge to be such percentage as is prescribed from time to time of the sale value of the wool, the percentage being such as is necessary to provide the amounts required to meet the share of the industry in the operating expenses of the Joint Organization, the payment of interest on monies expended by the Commonwealth in purchases of wool in pursuance of the Disposals Plan and unrecouped, and payment into the Wool Use Promotion Fund as provided under the Wool Use Promotion Act 1945.

(vii) *Conclusion.* To sum up, the plan, with its associated legislation, amounts to the underwriting of the income of Dominion wool producers during the next 12 to 14 years, protecting the growers against the serious fall in prices which would undoubtedly occur if the accumulated stocks were unloaded without control on the market, and it will prevent also undue price fluctuations during individual years and between one year and the next. In other words, it endeavours to guarantee the stability and solvency of the whole wool industry.

9. *Consumption of Locally Processed Wool.*—Particulars of the total consumption of wool in Australia are not available as quantities of manufactured woollen goods are imported whose contents in terms of wool cannot be ascertained. It is possible, however, to secure with reasonable accuracy the quantities of wool used in Australian factories and mills to produce woollen cloth and other woollen goods, such as blankets, rugs and knitted-wear. Some difficulties arise in the aggregation of returns from individual mills concerned with only one process in manufacture and whose output constitutes the raw material of other mills, but the risk of duplication has been reduced to a minimum. Reference is made to the woollen mills established in Australia in Chapter XXV. "Manufacturing Industry."

The factors used to convert scoured wool and woollen yarn processed in Australia into their greasy equivalent are now computed from the data furnished by woollen mills. In 1943-44 these factors were :—1 lb. of worsted yarn was taken to equal 1.99 lb. of greasy while the greasy equivalent of 1 lb. of scoured wool was 1.66 lb.

In the following table particulars are given of the quantity of wool processed in Australian factories during each of the years 1934-35 to 1943-44.

CONSUMPTION OF LOCALLY PROCESSED WOOL IN AUSTRALIA.

(In terms of greasy.)

Year.			Quantity.	Year.			Quantity.
			lb.				lb.
1934-35	..	..	55,753,478	1939-40	..	..	84,265,244
1935-36	..	..	70,205,840	1940-41	..	..	101,517,826
1936-37	..	..	71,579,920	1941-42	..	..	123,482,786
1937-38	..	..	68,377,043	1942-43	..	..	121,747,310
1938-39	..	..	68,444,311	1943-44	..	..	114,806,100

10. *Exports of Wool.*—(i) *Greasy—Quantities.* Of the total weight of greasy wool shipped overseas during the five years ended 1943-44, 42 per cent. was sent to the United Kingdom, compared with 38 per cent. dispatched during the years 1909 to 1913. The other leading consignees during the period were United States of America, 46 per cent.; France, 5 per cent.; and Japan, 4 per cent. The following table shows the quantities of greasy wool exported, and the principal countries of recorded destination.

EXPORTS OF WOOL IN THE GREASE : AUSTRALIA.

Country to which Exported.	Average Five Years 1909-13.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
	lb.	lb.	lb.	lb.	lb.	lb.
United Kingdom ..	212,004,088	333,263,937	146,331,337	198,764,867	173,255,776	195,986,984
Other British Countries ..	(a)	2,861,227	5,652,615	6,734,575	13,989,194	12,384,732
Belgium ..	55,143,706	104,147,161	..	..	..	..
France ..	149,835,946	162,034,076	..	..	..	..
Germany ..	106,344,696	35,027,760	..	..	..	..
Italy ..	4,381,197	21,186,890	..	..	..	..
Japan ..	7,262,683	72,659,411	58,100,837	11,324,899	..	..
Netherlands ..	(a)	15,701,733	..	..	..	..
Poland ..	(a)	6,954,917	..	..	..	..
United States of America ..	15,486,447	21,481,584	275,624,137	512,992,800	328,200,808	243,810,900
Other Foreign Countries ..	6,382,577	20,106,015	5,171,186	6,527,883	2,661,173	2,902,791
Total ..	556,841,340	795,727,712	490,880,112	736,345,024	518,127,551	455,115,413

(a) Included with Other Foreign Countries.

(ii) *Scoured and Washed including Tops, Noils and Waste—Quantities.* The exports of "scoured and washed" wool including tops, noils and waste during the period shown were as follows:—

EXPORTS OF WOOL—SCOURED AND WASHED, INCLUDING TOPS, NOILS AND WASTE : AUSTRALIA.

Country to which Exported.	Average Five Years 1909-13.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
	lb.	lb.	lb.	lb.	lb.	lb.
United Kingdom ..	32,032,577	36,591,488	38,516,576	24,037,302	11,980,449	24,746,603
Canada ..	(a)	4,470,367	8,694,416	8,700,828	4,884,467	7,913,794
Other British Countries ..	(a)	1,156,535	3,965,218	6,969,753	6,096,509	8,732,929
Belgium ..	7,528,058	5,802,183	..	..	..	..
France ..	16,068,910	9,960,450	..	..	..	..
Germany ..	12,310,967	1,935,088	..	..	..	..
Italy ..	265,442	67,051	..	..	..	..
Japan ..	1,888,161	1,618,827	165,652	19,611	..	..
Poland ..	..	497,285	..	..	..	..
United States of America ..	66,156	765,176	5,379,643	48,521,734	25,030,646	24,358,883
Other Foreign Countries ..	180,839	8,080,714	3,633,422	4,539,963	3,677,088	4,543,162
Total ..	70,347,110	70,945,164	60,354,927	92,789,190	51,669,159	70,295,371

(a) Included with Other Foreign Countries.

(iii) *Total Value of Exports.* The value of wool exported from Australia during the five years ended 1943-44 averaged 35 per cent. of the value of the exports of merchandise of local origin, and during 1943-44 the proportion was 32 per cent. The value during the period under review together with the principal countries to which wool was exported is shown in the following table:—

VALUE OF WOOL EXPORTS : AUSTRALIA.

Country to which Exported.	Average Five Years 1909-13.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
	£A.	£A.	£A.	£A.	£A.	£A.
United Kingdom ..	10,608,967	18,513,175	13,527,483	15,399,458	13,593,272	18,475,758
Other British Countries ..	(a)	675,143	2,189,392	2,639,965	2,898,651	3,956,730
Belgium ..	2,546,915	4,720,537	..	..	..	..
France ..	6,494,832	7,566,458	..	..	..	..
Germany ..	5,131,282	1,994,320	..	..	..	..
Italy ..	202,434	1,175,304	..	..	..	..
Japan ..	516,528	3,804,120	3,918,906	737,464	..	..
Netherlands ..	(a)	826,198	..	..	..	..
Poland ..	..	403,446	..	..	..	..
United States of America ..	795,328	1,346,187	19,060,182	38,193,388	27,141,701	22,281,578
Other Foreign Countries ..	296,356	1,712,208	949,573	1,073,838	684,564	1,053,352
Total ..	26,592,642	42,737,096	39,645,536	58,041,113	44,318,188	45,767,418

(a) Included with Other Foreign Countries.

11. **Local Sales of Wool.**—Approximately 90 per cent. of Australian wool is normally disposed of locally. Under pre-war conditions buyers from the United Kingdom, France, Belgium, Germany and other European countries, and from America, Japan, China and India attended the sales conducted in Sydney, Albury, Melbourne, Geelong, Ballarat, Brisbane, Adelaide, Perth, Hobart and Launceston.

12. **Value.**—Wool is the chief factor in the pastoral wealth of Australia, and the nation's prosperity is largely dependent upon the satisfactory sale of the clip. During the ten years ended 1938-39 the price of greasy wool sold in the selling centres of Australia averaged 11½d. per lb. compared with 13.27d. per lb. for the ten years ended 1943-44. This figure may be compared with an average of 18d. per lb. during the nine post-war years ended 1928-29, and 9d. per lb. for the seven pre-war years ended 1913-14. The heavy decline in the price of wool which commenced in 1929-30 continued during the next three years. In 1933-34, prices rose in a remarkable manner, averaging 15.84d. per lb., compared with 8.72d. per lb. for the previous year, an increase of 81.6 per cent. A decline in 1934-35 was succeeded by a period of rising prices in the two years following, but in 1937-38 and in 1938-39 prices again receded.

As mentioned in paragraph 6 above, the price of wool during the war years was determined by the British Government wool contract. The price fixed for the years 1939-40 to 1941-42 was 13.4375d. per lb., and for the years 1942-43 to 1945-46 15.45d. per lb.

The effect of fluctuating wool values upon the national income is reflected in the following figures. Based upon appraisement in each State plus certain adjustments as recorded by the State Statisticians, the gross value of the wool clip for Australia for 1942-43 amounted to £73,017,000 and for 1943-44 to £75,124,000 compared with £42,043,000 realized during 1938-39 under open market conditions. These values may be compared with £81,430,000 in 1924-25 when the record price was realized, and £34,804,000 in the year 1930-31.

The following table gives the average price per lb. of greasy wool determined by the British Government wool contract for the years 1939-40 to 1943-44 compared with the average auction-room price of greasy wool in Australia for 1938-39 as compiled by the National Council of Wool-selling Brokers. This latter price represents the average price realized for all greasy wool of whatever type or quality marketed during the year indicated.

WOOL : AVERAGE MARKET PRICE PER LB.

Description.	1938-39.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.
	d.	d.	d.	d.	d.	d.
Greasy	(a) 10.39	(b) 13.44	(b) 13.44	(b) 13.44	(c) 15.45	(c) 15.45

(a) National Council of Wool-selling Brokers. (b) The equivalent of the contract price of 10½d. sterling. (c) The equivalent of the contract price of 12.34d. sterling.

Measured in terms of Australian, sterling, and gold currencies the approximate values of greasy wool per lb. since 1934-35 were as follows:—

GREASY WOOL : AVERAGE VALUES PER LB.

Year.	Australian Currency.	Sterling.	Gold Prices.
	d.	d.	d.
1934-35	9.75	7.78	4.68
1935-36	14.01	11.19	6.79
1936-37	16.48	13.16	8.03
1937-38	12.51	9.99	6.15
1938-39	10.39	8.30	4.84
1939-40	13.44	10.75	5.37
1940-41	13.44	10.75	5.34
1941-42	13.44	10.75	5.34
1942-43	15.45	12.34	6.14
1943-44	15.45	12.34	6.14

The average values shown in sterling and gold currencies have been calculated by converting the average prices shown in Australian currency on the basis of the average rates of exchange and the average gold prices between the months of September and June in each year. Though not exact these results will suffice for general purposes.

13. **United Kingdom Importation of Wool.**—The important position which Australia occupies in the supply of wool to the United Kingdom is indicated in the following statement of the quantities and values of wool imported into that country during 1943 from the principal wool-producing countries. Particulars for later years are not available. In 1938, of a total of 881,325,400 lb., Australia supplied 365,518,900 lb.

WOOL (a) : IMPORTS INTO UNITED KINGDOM, 1943.

Country of Origin.	Quantity.	Value.	Country of Origin.	Quantity.	Value.
	lb.	£		lb.	£
Australia ..	101,261,700	7,306,150	Other British Possessions	10,600	510
New Zealand	97,971,600	6,500,521	United States of America ..	2,394,400	148,213
Union of South Africa ..	50,507,600	3,302,244	Argentina ..	1,221,000	56,166
India ..	6,750,600	554,932	Uruguay ..	261,500	12,529
Falkland Islands ..	5,578,200	329,178			
Eire ..	3,555,300	406,066	Total ..	269,512,500	18,616,509

(a) Greasy and Scoured.

Of the importations of wool into the United Kingdom during 1943, Australian wool represented 38 per cent. of quantity and 39 per cent. of value, and New Zealand 36 per cent. of quantity and 35 per cent. of value. Altogether, 265,635,600 lb., valued at £18,399,601, were received from British Possessions, these figures being equivalent to 99 per cent. of the total weight and 99 per cent. of the total value of all wool imported.

14. **Principal Importing Countries and Sources of Supply.**—The following table furnishes, in respect of the principal importing countries, details of their production and imports of wool for 1938, together with the chief sources of supply. The quantities imported refer to the actual weight of wool without distinguishing between greasy and scoured. They also exclude any wool imported on skins. Later details are not available.

WOOL : PRINCIPAL IMPORTING COUNTRIES AND SOURCES OF SUPPLY, 1938. (In millions of lb.)

Importing Country.	Production(a) of Importing Country.	Quantity imported from—					Total Imports.
		Australia.	Union of South Africa.	Argentina.	New Zealand.	Other Countries.	
United Kingdom ..	110.0	365	107	79	198	132	881
Belgium ..	0.7	106	19	20	7	65	217
Czechoslovakia ..	2.0	18	4	6	..	1	29
France ..	54.4	168	52	62	22	86	390
Germany ..	44.5	49	90	56	14	97	306
Italy ..	33.0	19	22	12	..	23	76
Japan ..	..	87	5	6	11	8	117
Poland ..	12.9	14	2	14	4	..	34
U.S.A. ..	457.7	7	1	47	4	44	103
Total ..	..	833	302	302	260	456	2,133

(a) As in the grease.

As a considerable transit trade exists between continental countries, it must not be assumed that the whole of the imports recorded by these countries are retained for their own consumption. The countries chiefly concerned with the transit trade are United Kingdom, Belgium, and France. The quantities re-exported during 1938 were :— United Kingdom, 269 million lb., or 30 per cent., of the total imports ; Belgium, 76 million lb., or 35 per cent. ; and France, 49 million lb., or 13 per cent.

§ 6. Trade in Hides and Skins.

1. **Extent of Trade.**—In addition to the hides and skins treated locally, considerable quantities are exported ; the value of cattle and horse hides, and sheep and other skins sent overseas during the five years ended 1943-44 amounted to £24,728,165, or an average of £4,945,633 per annum.

2. **Sheepskins with Wool.**—The exports of sheepskins with wool aggregating £6,952,595 during the five years above constitute an important item in the values referred to in the preceding paragraph, although the largest export in this period was that of rabbit skins valued at £12,967,516. During 1938-39 France was the largest purchaser of sheepskins with wool taking 74 per cent. of the total consignments, while the United Kingdom ranked next with 15 per cent., followed by Germany with 7 per cent. The exports of sheepskins with wool during each of the years 1940-41 to 1943-44 compared with 1938-39 were as follows :—

EXPORTS OF SHEEPSKINS WITH WOOL : AUSTRALIA.

Particulars.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Number ..	12,625,200	3,267,519	8,442,352	4,616,761	3,220,448
Value .. £A.	2,301,800	850,070	1,755,419	1,078,941	1,000,386

3. **Sheepskins without Wool.**—Sheepskins without wool are exported chiefly to the United States of America. During 1943-44 this country accounted for 97 per cent. of the total shipments while the remaining 3 per cent. were exported to the United Kingdom, Canada and the Soviet Union. Quantities and values for the four years 1940-41 to 1943-44 compared with 1938-39 are given in the table hereunder :—

EXPORTS OF SHEEPSKINS WITHOUT WOOL : AUSTRALIA.

Particulars.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Number ..	1,075,895	2,013,651	4,922,932	3,642,179	3,651,958
Value .. £A.	68,152	127,666	385,194	307,477	337,374

4. **Hides.**—(i) *Exports.* The export trade in cattle hides during 1943-44 was distributed as follows :—United Kingdom, £15,318 ; Turkey, £117,253 ; United States of America, £140,473.

The exports during the four years 1940-41 to 1943-44 compared with 1938-39 are given in the table below :—

EXPORTS OF CATTLE HIDES : AUSTRALIA.

Particulars.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Number ..	1,186,543	496,415	96,672	72,526	171,421
Value .. £A.	896,752	438,648	89,715	49,156	273,044

Calfskins exported during the five years ended 1943-44 numbered 485,568 valued at £118,297. The annual export of horse hides is very small, and for the five years ended 1943-44 numbered 29,794 hides valued at £27,313.

(ii) *Imports.* The imports of cattle hides and calfskins are fairly large, the chief source of supply being New Zealand, and small quantities are obtained from the Pacific Islands, France and Italy. The quantities and values of cattle hides, including calfskins, imported into Australia during the years 1938-39 and 1940-41 to 1943-44 were as follows :—

IMPORTS OF CATTLE HIDES : AUSTRALIA.

Particulars.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Quantity cwt.	80,641	26,672	40,604	73,673	47,139
Value .. £A.	280,273	88,370	193,368	316,255	176,038

5. **Other Skins.**—The exports of skins other than those mentioned in the preceding paragraphs were valued as follows :—

EXPORTS OF OTHER SKINS : AUSTRALIA.

Description.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
	£A.	£A.	£A.	£A.	£A.
Rabbit ..	(a) 129,140	2,207,591	3,368,644	1,986,198	4,493,699
Opossum ..	16,040	82,738	45,005	13,638	37,593
Kangaroo ..	169,078	238,564	165,111	158,236	210,889
Fox ..	27,767	76,341	131,338	89,946	272,389
Wallaby ..	9,640	13,627	13,347	13,462	50,082
Other..	25,912	17,863	18,828	11,894	65,878
Total ..	677,577	2,636,724	3,742,273	2,273,374	5,130,530

(a) Includes hare skins.

These skins were shipped principally to the United States of America and the United Kingdom, and the values taken by each during 1943-44 were as follows :—

OTHER SKINS : EXPORTS TO UNITED STATES AND UNITED KINGDOM, 1943-44.

Description.						United States of America.	United Kingdom.
						£A.	£A.
Rabbit	..	..	..	..	..	4,209,536	33,217
Opossum	..	..	..	..	..	32,613	..
Kangaroo	..	..	..	..	..	196,726	..
Fox	..	..	..	..	..	267,791	..
Wallaby	..	..	..	..	..	37,447	..
Other	..	..	..	..	..	60,745	482
Total						4,804,858	33,699

CHAPTER XX.

AGRICULTURAL PRODUCTION.

NOTE.—Except where otherwise stated, the “agricultural” years hereafter mentioned are taken as ending on 30th June.

§ 1. Introductory.

A brief reference to the attempts at cultivation by the first settlers in New South Wales and to the discovery of suitable agricultural land on the Parramatta and Hawkesbury Rivers prior to the year 1813 and west of the Blue Mountains thereafter is contained in early issues of the Official Year Book. (See No. 22, p. 670.)

§ 2. Progress of Agriculture.

1. **Early Records.**—In an “Account of Live Stock and Ground under Crop in New South Wales, 19th August, 1797”, Governor Hunter gives the acreage of crops as follows :—Wheat, 3,361 acres ; maize, 1,527 acres ; barley, 26 acres ; potatoes, 11 acres ; and vines, 8 acres.

At a muster taken in 1808 the following was the return of crops :—Wheat, 6,874 acres ; maize, 3,389 acres ; barley, 544 acres ; oats, 92 acres ; peas and beans, 100 acres ; potatoes, 301 acres ; turnips, 13 acres ; orchards, 546 acres ; and flax and hemp, 37 acres.

By the year 1850 the area of crops had increased to 491,000 acres, of which 198,000 acres were cultivated in what is now the State of New South Wales, and 169,000 acres in Tasmania. At the end of 1850 the area under cultivation in Victoria, which was then the Port Phillip District of New South Wales, was 52,190 acres.

The gold discoveries of 1851 and subsequent years had at first a very disturbing effect on agricultural progress, the area of crops declining from 491,000 acres in 1850 to 458,000 acres in 1854. The demand for agricultural products occasioned by the large influx of population was, however, soon reflected in the increased area cultivated, for at the end of 1858 the land under crop in Australia exceeded a million acres. The largest increase took place in Victoria, which returned an area of 299,000 acres. For the same year South Australia had 264,000 acres in cultivation, Tasmania 229,000 acres, and New South Wales 223,000 acres.

2. **Progress of Cultivation.** The following table shows the area of crops in each of the States and Territories of Australia at decennial intervals since 1860 and during each of the six seasons ended 1943-44 :—

AREA OF CROPS.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	N.T.	A.C.T.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1860-61	246,143	387,283	3,353	359,284	24,705	152,860	..	..	1,173,628
1870-71	385,151	692,840	52,210	801,571	54,527	157,410	..	..	2,143,709
1880-81	606,277	1,548,809	113,978	2,087,237	63,902	140,788	..	..	4,560,991
1890-91	852,704	2,031,955	224,993	2,093,515	69,678	157,376	..	..	5,430,221
1900-01	2,446,767	3,114,132	457,397	2,369,680	201,338	224,352	..	..	8,813,666
1910-11	3,386,017	3,952,070	667,113	2,740,334	855,024	286,920	360	..	11,893,838
1920-21	4,405,143	4,489,593	779,497	3,231,083	1,804,987	297,383	296	1,966	15,069,858
1930-31	6,811,247	6,715,660	1,144,216	5,420,075	4,792,017	267,632	1,550	5,419	25,163,816
1938-39	7,049,357	5,019,299	1,734,789	4,724,090	4,719,254	243,048	1,116	6,827	23,497,790
1939-40	6,381,531	5,002,362	1,726,091	4,541,614	4,331,209	258,038	340	8,119	22,249,394
1940-41	6,374,354	4,467,191	1,734,248	4,254,348	4,026,969	253,941	322	6,457	21,117,830
1941-42	5,929,553	4,734,613	1,671,336	3,976,232	3,852,092	280,970	..	5,549	20,450,345
1942-43	5,297,313	3,816,430	1,742,802	3,436,675	2,819,713	300,005	..	6,779	17,419,717
1943-44	4,797,385	3,462,537	1,757,396	2,760,778	2,782,414	334,933	..	6,760	15,902,212

The progress of agriculture was practically uninterrupted from 1860 to 1915-16, when, as the result of a special effort to raise wheat during the 1914-19 War. 18,528,234 acres were cultivated in Australia. Four years later the area of crops declined to 13,296,407 acres owing to the accumulation of wheat stocks consequent upon the difficulty of securing freight space during the war years. After the termination of hostilities the area again began to expand and rose steadily to a new maximum of 25,163,816 acres in 1930-31. Thereafter the slump in wheat prices seriously depressed the agricultural industry and the area of crops receded to just under 20 million acres in 1935-36. Subsequently the area increased, reaching a maximum of 23½ million acres in 1938-39 and thereafter declined to under 16 million acres in 1943-44. Following the outbreak of war in 1939, the area under crop declined with each successive year. This movement was contrary to the experience of the 1914-19 War when the decline did not occur until the third war-year.

3. **Area under Sown Pastures.**—In all the States there are considerable areas of grasses mainly sown on land from which scrub has been cleared or on land which it is desired to rest from cultivation. These areas, which are not included in "area of crops", have expanded from 5½ million acres in 1929-30 to more than 10 million acres in 1944-45.

4. **Australian Agricultural Council.**—Arising out of a conference of Commonwealth and State Ministers on agricultural and marketing matters held at Canberra in December, 1934, a permanent organization known as the Australian Agricultural Council was formed. The Council consists of the Commonwealth Minister for Commerce and Agriculture and the State Ministers of Agriculture, with power to co-opt the services of other Commonwealth and State Ministers as required. The principle functions of the Council are (i) the promotion of the welfare and development of agricultural industries generally; (ii) the improvement of the quality of agricultural products and the maintenance of high grade standards; (iii) to ensure, as far as possible, balance between production and available markets; and (iv) organized marketing, etc.

In addition a permanent technical committee known as the Standing Committee on Agriculture was formed to act in an advisory capacity to the Council and whose functions would be :—(i) to secure co-operation and co-ordination in agricultural research throughout Australia; (ii) to advise the Commonwealth and State Governments, either directly or through the Council, on matters pertaining to the initiation and development of research on agricultural problems; and (iii) to secure co-operation between the Commonwealth and States and between the States in respect to quarantine measures relating to pests and diseases of plants and animals, and to advise the Commonwealth and State Governments. The personnel of this Committee consists of the permanent heads of the State Departments of Agriculture, members of the Executive Committee of the Council for Scientific and Industrial Research, the Commonwealth Director-General

of Health, the Secretary, Department of Commerce and Agriculture and the Director-General of Agriculture. The membership of the Standing Committee was extended during the war to include the Director-General of Man Power, the Commonwealth Statistician and the Commonwealth Prices Commissioner.

§ 3. Distribution, Production and Value of Crops.

1. *Distribution of Crops.*—The following table gives the areas in the several States and Territories of each of the principal crops for the season 1943-44 :—

AREA OF PRINCIPAL CROPS, 1943-44.

Crop.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T. (a)	A.C.T.	Aust.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Wheat (Grain)	2,693,302	1,793,428	281,302	1,533,816	1,567,016	4,839	..	1,418	7,875,121
Oats ..	374,205	426,305	22,104	224,454	358,129	9,744	..	403	1,415,344
Maize ..	103,237	6,598	172,722	..	105	19	..	..	282,681
Barley—									
2 Row ..	10,154	70,341	9,349	234,334	29,913	3,128	..	128	357,347
6 Row ..	9,921	12,918	3,562	27,112	31,487	308	..	229	85,537
Rye ..	552	2,919	146	11,203	1,773	269	..	..	16,862
Rice ..	40,690	..	..	..	..	..	..	..	40,690
Hay ..	534,470	740,672	71,992	312,277	282,614	99,283	..	2,806	2,044,114
Green Fodder ..	782,265	112,880	600,181	269,645	446,803	51,592	..	1,436	2,264,802
Other Stock									
Fodder ..	7,403	8,793	22,557	21,860	4,773	16,133	..	21	81,540
Grass and other									
Seeds ..	(a) 7,794	8,433	73,274	9,062	(b)	1,570	..	..	(a) 100,133
Orchards and									
other Fruit-									
gardens ..	81,283	70,024	31,878	25,521	21,154	32,135	..	105	262,100
Vines—									
Productive ..	15,347	41,285	2,563	55,690	8,803	..	..	2	123,690
Unproductive	654	1,426	435	1,571	1,437	..	..	..	5,523
Sugar-cane—									
Productive ..	8,240	..	220,932	..	..	..	..	..	229,172
Unproductive	7,373	..	99,874	..	..	..	..	..	107,247
Beans, Navy	6,828	1,503	2,146	1	14	19	..	..	10,511
Peas, Blue	1,223	4,196	159	1,923	1,035	37,500	..	..	46,036
Potatoes ..	30,067	70,430	14,609	8,958	7,375	60,500	..	136	192,075
Onions ..	876	6,151	1,934	702	445	62	..	5	10,175
Other vegetables									
for human									
consumption	76,930	44,266	48,506	10,442	9,916	8,468	..	50	198,668
Tobacco ..	657	2,000	2,348	..	1,611	..	..	..	6,616
Broom Millet ..	2,224	890	143	..	17	..	..	..	3,274
Hops ..	..	160	..	..	21	1,114	..	..	1,295
Cotton ..	..	..	41,389	..	..	..	..	..	41,389
Flax—for fibre	..	31,567	..	9,511	7,642	6,011	..	..	55,631
All other Crops	1,690	5,352	33,291	2,696	331	1,339	..	..	44,699
Total Area ..	4,797,385	3,462,537	1,757,396	2,760,778	2,782,414	334,933	..	6,769	15,902,212

(a) Incomplete.

(b) Not available.

2. *Relative Areas of Crops in States and Territories.*—The proportion of each of the crops cultivated to the extent of over 100,000 acres in the various States and Territories on the total area of crops for the season 1943-44 is shown in the next table. In four of the States, namely, New South Wales, Victoria, South Australia and Western Australia, wheat-growing for grain is by far the most extensive. In Queensland the most extensive crops are green forage, wheat, sugar-cane and maize, and in Tasmania hay, green fodder, potatoes, blue peas, orchards and fruit-gardens, and oats.

As pointed out previously wheat is the main crop in Australia, the area thereof for grain only representing almost half the total area of crops in 1943-44.

RELATIVE AREAS UNDER CROP, 1943-44.

Crop.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	N.T. (a)	A.C.T.	Aust.
	%	%	%	%	%	%	%	%	%
Wheat ..	56.14	51.80	16.01	55.56	56.32	1.45	..	20.95	49.52
Hay ..	11.14	21.39	4.10	11.31	10.16	29.64	..	41.46	12.85
Oats ..	7.80	12.31	1.26	8.13	12.87	2.91	..	5.95	8.90
Green Fodder..	16.31	3.26	34.15	9.77	16.06	15.40	..	21.21	14.26
Barley ..	0.42	2.40	0.73	9.47	2.21	1.03	..	5.27	2.79
Sugar-cane	0.33	..	18.26	..	..	..	..	..	2.12
Maize ..	2.15	0.19	9.83	..	..	..	..	..	1.77
Orchards and Fruit-gardens	1.69	2.02	1.81	0.92	0.76	9.59	..	1.55	1.65
Potatoes ..	0.65	2.04	1.16	0.33	0.27	18.06	..	2.00	1.25
Vineyards	0.33	1.23	0.17	2.07	0.36	..	..	0.03	0.81
All other..	3.04	3.36	12.52	2.44	0.99	21.92	..	1.58	4.08
Total ..	100.00	100.00	100.00	100.00	100.00	100.00	..	100.00	100.00

(a) Not available.

3. Area of Principal Crops in Australia.—The area of the principal crops during each of the four seasons ended 1943-44, the last pre-war season 1938-39 and the average for the decennium ended 1938-39 is shown hereunder:—

AREA OF PRINCIPAL CROPS : AUSTRALIA.

Crop.	Average, Ten years ended 1938-39.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
	'000 acres.	'000 acres.	'000 acres.	'000 acres.	'000 acres.	'000. acres.
Barley (a) ..	428	650	639	663	356	357
Maize ..	295	324	363	301	285	283
Oats ..	1,393	1,784	1,723	1,461	1,497	1,415
Rice ..	22	24	24	24	34	41
Wheat ..	14,345	14,346	12,645	12,004	9,280	7,875
Green Fodder	1,272	1,789	1,989	1,808	2,112	2,265
Hay ..	2,994	3,250	2,353	2,758	2,359	2,044
Beans and Peas	49	43	51	58	77	57
Onions ..	8	7	7	8	16	19
Potatoes (b)	130	98	123	99	140	192
Other Vegetables for human consumption	(c)34	(c)66	(c)79	(c)96	(c)129	199
Sugar-beet ..	3	4	4	3	1	1
Vineyards ..	118	127	130	129	130	129
Hops ..	1	1	1	1	1	1
Sugar-cane	332	369	371	352	329	336
Cotton ..	43	66	41	61	56	41
Tobacco ..	12	8	8	9	7	7
Orchards ..	276	272	270	267	260	262
All Other Crops	203	270	297	348	357	387
Total ..	21,958	23,498	21,118	20,450	17,420	15,902

(a) Malting only.

(b) Excludes Sweet Potatoes.

(c) Market Gardens.

4. Weights and Measures.—The production of agricultural commodities in Australia is recorded either in terms of capacity or weight. When measured in terms of capacity the unit is the bushel of 2,218.192 cubic inches or gallon of 277.274 cubic inches. When measured in terms of weight, the unit adopted is either the long ton of 2,240 lb. (except in the case of flour, bran and pollard, when the short ton of 2,000 lb. is used), the hundred-weight (cwt.) of 112 lb. or pound (lb.)

The production of cereals and fruit is recorded in bushels, the production of wine in gallons, while hay, vegetables, grapes and industrial crops are measured by weight, generally in terms of long tons or cwts.

In the following table the weights adopted per bushel are given for the more important cereals, fruits, etc. Several types of cases are used for fruits, but in determining the average weights shown below, that with a capacity of 2,223 cubic inches was adopted. The packed weight of a bushel of fruit also is subject to considerable variation according to the kind and variety of fruit.

Data compiled by the State Departments of Agriculture made available to this Bureau were used in determining these average fruit weights.

APPROXIMATE BUSHEL EQUIVALENTS.

Commodity.	Approximate Bushel Equivalent in lb.	Commodity.	Approximate Bushel Equivalent in lb.
Cereals—		Fruit— <i>continued.</i>	
Barley	50	Bananas	56
Canary Seed	56	Cherries	48
Maize	56	Citrus—	
Millets	60	Oranges	48
Oats	40	Mandarins	48
Panicum	60	Lemons	48
Rice (Paddy)	42	Grape Fruit	42
Rye	60	Custard Apples	35
Sorghum	60	Figs	44
Wheat	60	Mangoes	40
Legumes—		Nectarines	50
Beans	60	Passion Fruit	34
Peas	60	Peaches	45
Other Crops—Flax Seed	56	Pears	45
Fruit—		Persimmons	44
Apples	42	Plums and Prunes	58
Apricots	48	Quinces	42

5. Total and Average Production of Principal Crops in Australia.—The following table shows the production of the principal crops for the four years ended 1943-44, the year 1938-39 and for the decennium ended 1938-39 :—

TOTAL AND AVERAGE PRODUCTION OF PRINCIPAL CROPS : AUSTRALIA.

Crop.	Unit of Quantity.	Average, Ten years ended 1938-39.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Barley (a)	'000 bus.	7,480	9,704	6,185	15,713	6,782	6,397
Maize	" "	7,228	7,057	9,193	7,430	6,885	7,433
Oats	" "	10,437	15,555	10,199	22,302	21,532	17,712
Rice	" "	2,005	2,775	2,240	2,192	3,084	4,015
Wheat	" "	109,398	155,369	82,233	166,713	155,728	109,720
Hay	" tons	3,490	3,321	2,177	3,575	3,116	2,717
Beans and Peas	" bus.	734	495	596	(b) (d) 14	(b) (d) 25	(b) 20
Onions	" tons	43	18	33	34	55	47
Potatoes (c)	" "	351	274	400	333	484	599
Pumpkins and Melons	" "	60	81	138	(e)	(e)	(e)
Sugar (Beet)	" "	5	1.5	3.3	2.8	0.7	0.7
Grapes	" "	381	402	430	464	480	527
Wine	" gals.	16,330	14,958	15,997	16,045	19,864	19,865
Raisins and Currants	" tons	70	75	81	93	07	103
Hops	" lb.	2,127	2,402	3,248	3,032	2,779	2,999
Sugar (Cane)	" tons	658	823	606	746	650	524
Cotton, Unginned	" lb.	15,667	13,688	12,108	15,869	14,058	9,540
Tobacco	" "	5,336	4,046	5,476	7,040	4,969	4,633

(a) Malting only.
(e) Not available.

(b) Tons.

(c) Excludes Sweet Potatoes.

(d) Incomplete.

6. **Average Yield per Acre of Principal Crops in Australia.**—The following table shows the yield per acre for Australia of the principal crops for the four years ended 1943-44, for the year 1938-39 and the decennium ended 1938-39.

AVERAGE YIELD PER ACRE OF PRINCIPAL CROPS: AUSTRALIA.

Crop.	Unit of Quantity.	Average, Ten years ended 1938-39.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Barley (a)	Bushel	17.49	14.92	9.68	23.72	19.03	17.89
Maize	"	24.53	21.77	25.33	24.67	24.19	26.29
Oats	"	11.80	8.72	5.92	15.27	14.38	12.52
Rice	"	93.00	117.92	91.26	92.75	90.11	98.67
Wheat	"	11.81	10.83	6.50	13.89	16.78	13.93
Hay	Ton	1.17	1.02	0.93	1.30	1.32	1.33
Onions	"	5.54	2.74	4.92	4.47	5.63	4.61
Potatoes (b) ..	"	2.71	2.80	3.74	3.35	3.45	3.12
Pumpkins and Melons ..	"	2.75	2.65	3.29	2.45	2.85	2.38
Sugar (Beet) ..	"	1.40	0.35	0.91	0.97	0.71	0.84
Grapes (c)	"	3.45	3.43	3.51	3.75	3.86	4.26
Wine (c)	Gallon	340	300	316	318	397	402
Raisins and Currants (c) ..	Ton	1.28	1.26	1.27	1.44	1.39	1.57
Hops (c)	lb.	2,003	2,235	2,862	2,264	2,106	2,279
Sugar (Cane) (c) ..	Ton	3.76	3.14	2.95	2.93	2.70	2.29
Cotton, Unginned (c) ..	lb.	366	206	293	258	249	330
Tobacco	"	463	518	640	798	693	700

(a) Malting only.

(b) Excludes Sweet Potatoes.

(c) Per acre of productive crops.

7. **Gross Value of Agricultural Production in Australia.**—The following table shows the gross value of recorded agricultural production at the principal markets in Australia for the years 1938-39 to 1943-44:—

GROSS VALUE OF AGRICULTURAL PRODUCTION: AUSTRALIA.

Crops.	1938-39.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.
	£'000.	£'000.	£'000	£'000.	£'000.	£'000.
Barley (a)	1,417	2,429	1,474	2,316	1,124	1,856
Maize	1,503	1,305	2,040	1,632	2,251	2,530
Oats	2,085	2,597	1,523	2,697	2,911	2,471
Rice	540	413	474	506	759	983
Wheat	21,989	38,775	17,145	31,091	33,346	25,021
Green Fodder ..	2,999	3,039	3,558	3,764	4,205	(e)4,170
Hay	12,704	10,567	8,278	12,988	14,445	13,488
Beans and Peas ..	253	377	411	455	607	599
Onions	306	296	456	543	781	696
Potatoes (b) ..	3,649	3,497	2,834	4,312	5,961	7,233
Other Vegetables for Human Consumption ..	(c)2,473	(c)2,818	(c)2,923	(c)2,941	(d)12,114	14,864
Sugar-beet	27	99	59	53	14	17
Grapes	3,924	4,657	4,618	5,377	6,031	7,384
Hops	183	148	244	233	219	238
Sugar-cane	9,178	11,192	10,655	9,607	9,282	8,521
Tobacco	360	504	625	822	577	536
Cotton, Unginned ..	230	301	205	304	320	212
Orchards	9,695	9,212	9,241	10,512	14,253	19,327
Other Crops	3,336	3,498	3,643	4,625	2,335	2,978
Total, Gross Value ..	76,851	95,784	70,406	94,778	111,535	113,124

(a) Malting only. (b) Excludes Sweet Potatoes. Includes some values of vegetables for stock fodder.

(c) Market Gardens. (d) Incomplete. (e) Excludes Western Australia.

8. **Value of Production—Gross and Net.**—(i) *General.* Uniform methods for arriving at the gross and net values of production in the various States were finally determined at a Conference of Statisticians held in March, 1935. The returns for the year 1933-34 and subsequent years have been valued on the new basis, and a revaluation was made for the years back to 1928-29. A more detailed reference to the value of production of agriculture and other industries in Australia as well as a brief explanation of the terms used will be found in Chapter XXVIII "Miscellaneous".

In computing the net value of production no deduction has been made for the cost of maintenance of farm buildings and fences, nor for the depreciation of farm plant; consequently the figure stated is inflated to that extent.

GROSS, FARM AND NET VALUES OF AGRICULTURAL PRODUCTION, 1943-44.

(As Estimated by State Statisticians in Accordance with Conference Resolutions.)

State.	Farm Costs.						Deprecia- tion (estimated)
	Gross Pro- duction valued at Principal Markets.	Marketing Costs.	Gross Pro- duction valued at Farm.	Seed used, and Podder for Farm Stock.	Value of other Materials used in pro- cess of pro- duction.	Net Value of Pro- duction. (a)	
	£	£	£	£	£	£	£
New South Wales ..	36,039,000	5,798,000	30,241,000	4,147,000	(b) 687,000	25,407,000	(c)
Victoria (d) ..	25,027,101	2,813,549	22,213,552	4,898,701	1,231,051	16,062,000	900,000
Queensland ..	22,015,000	2,100,000	19,915,000	1,640,000	1,520,000	16,755,000	1,000,000
South Australia ..	15,306,268	1,541,811	13,764,457	2,056,276	970,048	10,738,133	594,493
Western Australia ..	8,079,883	1,105,281	6,974,602	1,051,863	1,011,742	4,910,997	540,200
Tasmania ..	7,282,240	1,149,650	6,132,590	1,101,440	204,530	4,826,620	130,000
Total ..	113,749,492	14,508,291	99,241,201	14,895,280	5,645,271	78,700,650	£3,164,693

(a) No deduction has been made for depreciation and maintenance.

costs of power, power kerosene, petrol and other oils.

(b) No allowances made for

(c) Not available.

(e) Incomplete.

(d) Subject to revision.

(ii) *States 1934-35 to 1943-44.* In the following table the net value of agricultural production and the net value per head of population are given by States for the years 1934-35 to 1943-44:—

VALUE OF AGRICULTURAL PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
NET VALUE.(a)							
	£	£	£	£	£	£	£
1934-35 ..	12,787,000	8,735,776	9,018,187	6,375,538	4,268,547	1,951,150	43,136,198
1935-36 ..	13,285,000	11,716,768	9,699,000	7,336,855	4,678,390	1,723,180	48,438,993
1936-37 ..	19,364,000	16,356,341	10,796,000	9,057,406	5,921,108	1,708,630	63,113,485
1937-38 ..	14,829,000	14,962,412	11,264,000	9,159,941	6,142,705	2,482,500	58,840,556
1938-39 ..	11,804,000	5,619,765	11,615,000	5,489,225	4,065,616	3,084,971	41,678,580
1939-40 ..	16,350,000	11,907,131	13,696,000	9,458,140	7,064,100	2,433,760	60,909,131
1940-41 ..	9,294,000	7,097,209	13,723,000	6,048,310	3,678,106	1,730,480	41,571,105
1941-42 ..	15,957,000	15,511,086	13,380,000	7,769,042	6,335,815	3,179,810	62,133,353
1942-43 ..	23,853,000	19,026,308	15,116,000	10,316,341	4,955,665	3,225,910	77,093,224
1943-44 ..	25,407,000	16,062,900	16,755,000	10,738,133	4,910,997	4,826,620	78,700,650

NET VALUE PER HEAD OF MEAN POPULATION.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1934-35 ..	4 17 1	4 15 2	9 7 8	10 18 3	9 12 8	8 10 4	6 8 9
1935-36 ..	5 0 0	6 7 1	9 19 6	12 10 4	10 8 11	7 9 8	7 3 6
1936-37 ..	7 4 6	8 16 7	10 17 7	15 7 11	13 2 1	7 7 2	9 5 6
1937-38 ..	5 9 6	8 0 9	11 6 4	15 10 2	13 8 8	10 11 3	8 11 5
1938-39 ..	4 6 4	2 19 11	11 10 9	9 4 8	8 15 9	13 0 5	6 0 4
1939-40 ..	5 18 5	6 6 0	13 8 5	15 16 1	15 1 7	10 3 5	8 14 1
1940-41 ..	3 6 10	3 13 11	13 5 11	10 1 10	7 15 7	7 3 11	5 17 9
1941-42 ..	5 13 11	7 18 9	12 17 9	12 15 11	13 10 5	13 5 1	8 14 1
1942-43 ..	8 8 6	9 13 1	14 15 8	16 16 7	10 6 5	14 12 1	10 14 2
1943-44 ..	8 18 0	8 1 6	15 16 8	17 7 2	10 3 7	19 15 6	10 16 8

(a) No deduction has been made for depreciation and maintenance.

§ 4. Wheat.

1. Royal Commission on the Wheat Industry.—A Royal Commission was appointed in January, 1934, to inquire into and report upon the economic condition of the industries of growing, handling and marketing wheat, and the manufacturing, distributing and

selling of flour and bread. A searching inquiry was made by the Commission and the results of its investigations were submitted in a series of five reports. The first and second reports covered the wheat-growing industry, the third that of baking, the fourth the flour-milling industry, while the fifth, completed in February, 1936, dealt with the history of the Commission's investigations and traversed the principal recommendations submitted.

Reference to the financial assistance to the wheat industry will be found in § 19, Bounties, hereafter.

2. Wheat Industry Stabilization Plan.—The Wheat Industry Stabilization Plan operated throughout Australia during each of the seasons 1941-42 to 1945-46. The plan provides for the registration of farms and licensing of areas. The area allotted to each grower is fixed in proportion to the average sown during the basic four-year period, details of which are shown for each State in the table below. Although licensing continued during the 1945-46 season, growers were permitted to plant without restriction. A similar freedom is to apply in 1946-47. In Western Australia growers' acreages during 1942-43 were restricted to a maximum of two-thirds of their basic acreage which restriction continued during the 1943-44 and 1944-45 seasons. During 1945-46 no such restriction was imposed but where growers voluntarily restricted the area sown to five-sixths or less of their basic acreage, compensation equal to one-sixth of their basic acreage was payable subject to the qualification that half of the area licensed for wheat was cropped for grain.

In the following table supplied by the Wheat Stabilization Board the basic acreage and the areas licensed to grow wheat for grain are given for each State and the Australian Capital Territory. Details of the area sown as well as the percentage that these areas bear to the area licensed are also given.

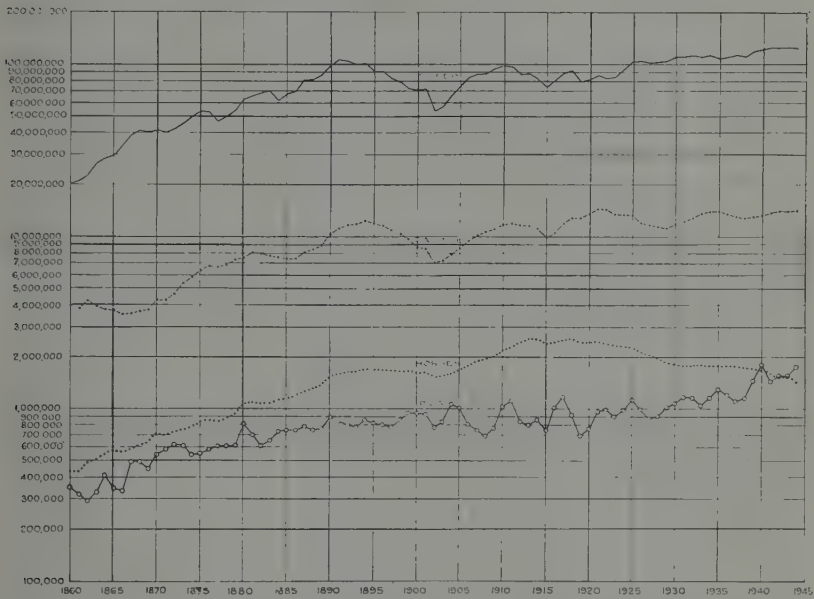
WHEAT FOR GRAIN : LICENSED AND SOWN ACREAGES.

(⁰000 acres.)

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	A.C.T.	Aust.
Basic Acreage	5,096	3,195	481	3,058	3,205	12	1	15,048
1941-42—								
Area licensed	4,286	2,877	461	2,497	2,687	8	2	12,818
Area sown	3,969	2,757	290	2,326	2,653	6	1	12,002
Area sown as a percentage of area licensed .. per cent.	95	96	63	93	99	75	75	94
Number of licences issued No.	24,022	17,942	3,729	15,989	9,887	(a)	(a)	b 71,569
1942-43—								
Area licensed	3,667	2,614	447	2,415	(c) 1,818	5	2	10,968
Area sown	3,033	2,145	335	2,009	(c) 1,753	4	1	9,280
Area sown as a percentage of area licensed .. per cent.	83	82	75	83	96	80	75	85
Number of licences issued No.	19,833	15,724	3,474	15,727	8,693	(a)	(a)	b 63,451
1943-44—								
Area licensed	3,692	2,395	474	2,132	(c) 1,950	4	2	10,649
Area sown	2,693	1,793	281	1,534	(c) 1,567	5	2	7,875
Area sown as a percentage of area licensed .. per cent.	73	75	59	73	80	..	..	74
Number of licences issued No.	19,884	15,181	3,582	14,727	8,692	(a)	(a)	b 62,066
1944-45—								
Area licensed	3,992	2,562	523	2,215	(c) 1,980	3	2	11,277
Area sown	2,845	2,142	332	1,623	(c) 1,516	4	1	8,463
Area sown as a percentage of area licensed .. per cent.	71	84	63	73	76	..	75	75
Number of licences issued No.	21,566	15,810	3,675	14,743	8,683	(a)	(a)	b 64,477
1945-46 (f)—								
Area licensed	(e) 4,880	(e) 3,570	(e) 524	(e) 2,829	(d) 2,559	3	2	e 14,367
Area sown (g)	4,047	3,227	400	2,040	(d) 1,800	3	1	11,518
Area sown as a percentage of area licensed .. per cent.	83	90	76	72	70	100	75	80
Number of licences issued No.	23,340	18,099	3,436	15,507	8,475	132	30	69,019

(a) Not available. (b) Excludes Tasmania and Australian Capital Territory. (c) Compulsorily restricted by one-third. (d) Restriction not compulsory but compensation paid where area is voluntarily restricted. (e) Includes areas temporarily licensed on temporary wheat farms, viz., New South Wales, 66,032 acres; Victoria, 18,261 acres; Queensland, 71,404 acres; South Australia, 363,855 acres; Australia, 519,552 acres. (f) Subject to revision. (g) Forecast.

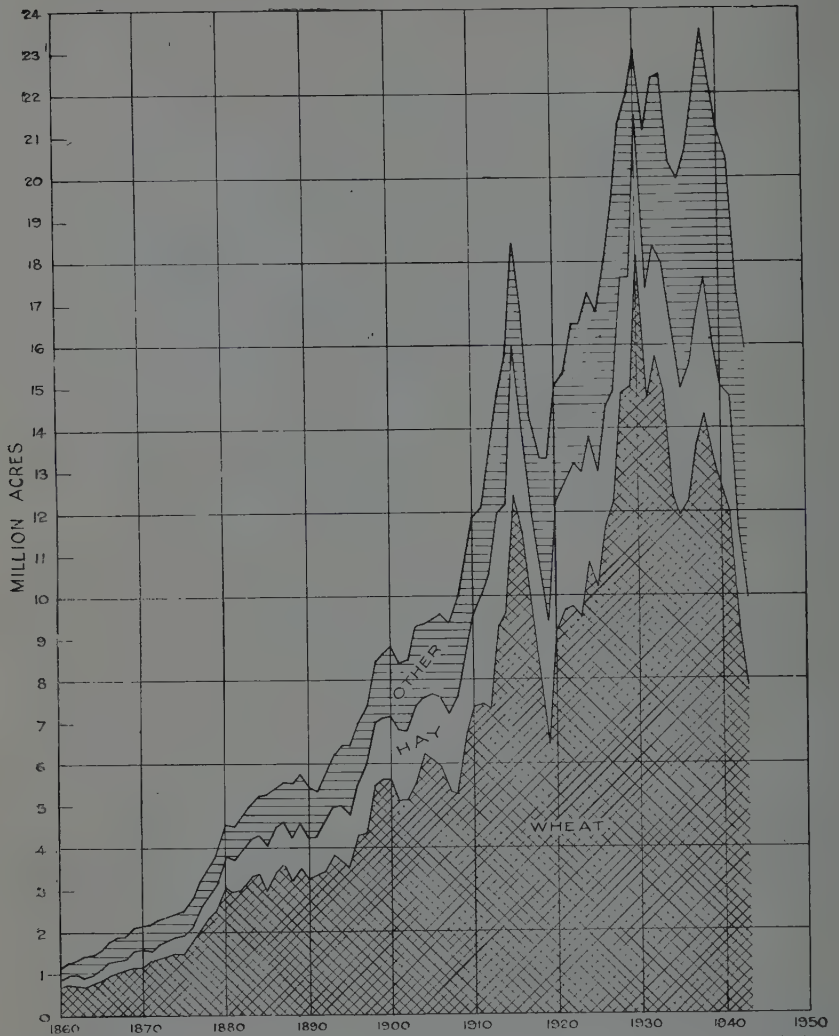
LIVE STOCK—AUSTRALIA, 1860 TO 1944.



(See page 748.)

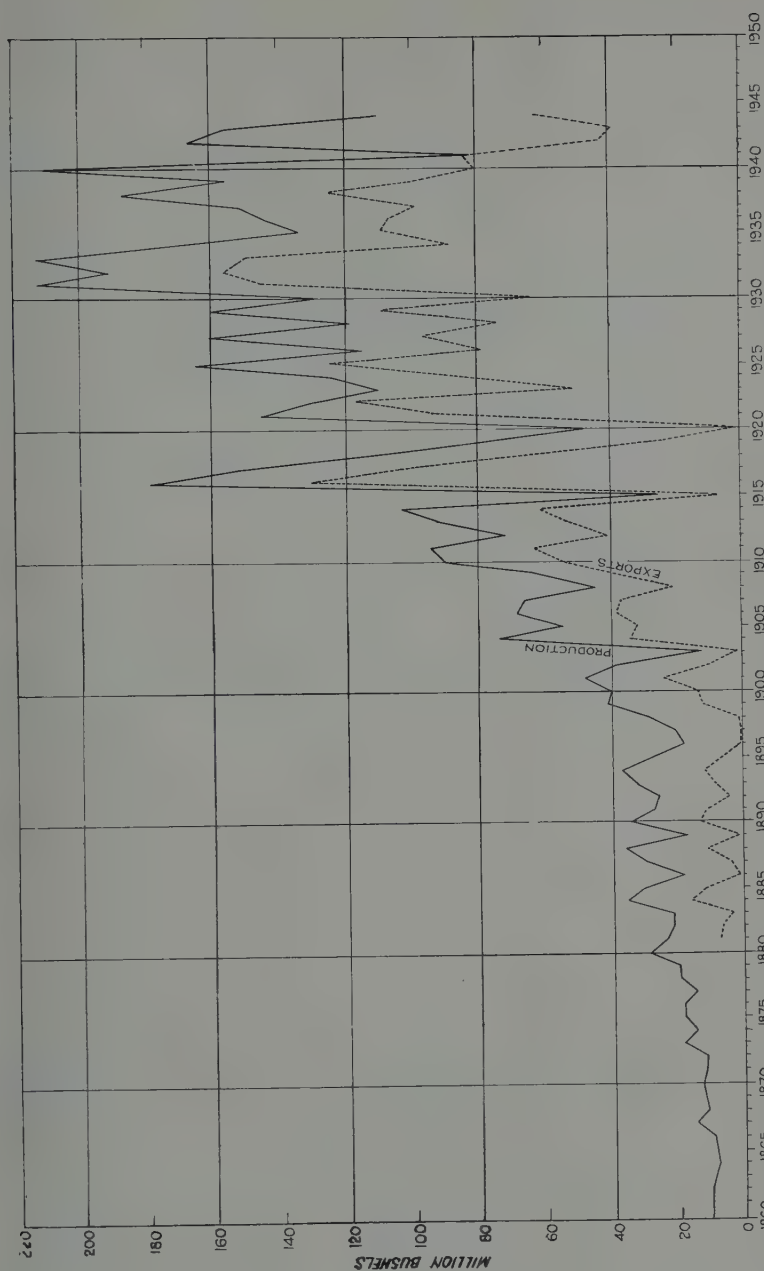
EXPLANATION.—This is a ratio graph, the vertical scale being logarithmic and the curves rise and fall according to the rate of increase or decrease. Actual numbers are indicated by the scale at the side of the graph.

AREA OF CROPS—AUSTRALIA, 1860-61 TO 1943-44.



EXPLANATION.—The total area of crops is shown by the top curve in this graph, and the area of wheat by the bottom curve. The vertical distances between these curves and that in the centre indicate the areas of hay and other crops.

PRODUCTION AND EXPORTS OF WHEAT—AUSTRALIA, TO 1943-44.



NOTE.—The export figures for the years 1915-16 to 1920-21 do not represent the surplus available for export in each of these years because of the dislocation of shipping due to the War of 1914-1919. For these years the quantity consumed in Australia has been averaged and the balance taken as exports.

3. **Post-war Wheat Stabilization Plan.**—Legislation for the stabilization of the wheat growing industry was introduced by the Commonwealth Government in 1946. Plans for this development arose from the Premiers' Conference held in January, 1946, at which it was agreed that joint action by all Australian Governments should be taken to give effect to proposals agreed upon.

The principal features of the plan, as provided by the two Acts passed by the Commonwealth Government, viz. the Wheat Industry Stabilization Act 1946, and the Wheat Export Charge Act 1946, are as follows :—

- (i) The preservation over five years of a price of 5s. 2d. f.o.r. at ports bagged for all wheat consumed within Australia ;
- (ii) A guarantee by the Government of a minimum price for export of 5s. 2d. per bushel f.o.r. at ports bagged ;
- (iii) When the export price exceeds the guaranteed price, growers to contribute to a fund to an amount not exceeding 50 per cent. of the difference between the export price and the guaranteed price of 5s. 2d. ;
- (iv) When the export price falls below 5s. 2d., the fund will be called upon to provide the amount necessary to bring the export up to 5s. 2d. ;
- (v) If and when the fund is exhausted in any one year, the Government under its guarantee will provide, out of general revenue, the funds necessary to bring export prices up to 5s. 2d. ;
- (vi) For the 1945-46 harvest the Government proposes that the grower will be paid on export wheat 5s. 2d. plus 2s. 2d. plus the excess of export returns over 9s. 6d. Under this arrangement, it is calculated that, for the whole of his sales (export and local), growers will receive 6s. 7d. per bushel f.o.r. at ports bagged.

During 1946 complementary legislation was passed in Queensland and Tasmania. In Victoria the Bill passed the Legislative Assembly only, and was deferred until 1947. In New South Wales legislation had not been introduced. In South Australia and Western Australia the Act was not to operate unless first approved by a poll of wheat-growers. In January, 1947, the South Australian poll rejected the proposals by a narrow majority.

4. **Wheat Farms.**—Particulars of the number of farms growing wheat for grain on 20 acres and upwards during each of the five years ended 1940-41 are shown in the following table. It should be noted that a farm worked on the share system or as a partnership is included as one holding only. Later details have not been tabulated.

NUMBER OF FARMS GROWING WHEAT FOR GRAIN ON 20 ACRES AND UPWARDS.

State.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	No.	No.	No.	No.	No.
New South Wales	15,425	16,287	16,550	16,175	15,831
Victoria	12,090	12,936	12,305	12,065	11,972
Queensland	2,211	2,809	3,190	2,542	2,169
South Australia	12,155	12,251	11,842	11,468	10,986
Western Australia	8,625	8,841	8,989	8,482	8,074
Tasmania	379	372	146	143	140
Total	50,885	53,496	53,022	50,875	49,172

5. **Area, Production and Average Yield.**—(i) *Area.* Wheat is the principal crop raised in Australia, and its progress since 1860 has been almost continuous. Prominent features in its early development were the increase in population following the discovery of gold and the redistribution of labour after the surface gold had been won. The economic depression of 1893 interrupted its progress but its subsequent recovery was assisted by the invention of mechanical appliances, the use of superphosphate as an aid to production, and the introduction of new and more suitable varieties for Australian

conditions. The establishment of closer settlement schemes and the settling of returned soldiers and others on the land were additional factors in its expansion. The most serious interruptions in more recent years were those occasioned by the two World Wars and the economic depression of the early thirties.

As previously mentioned, any variation in the acreage sown to this cereal is materially reflected in the total area of crops. The area and yield of wheat for grain in each State are given below for 1938-39 and the five years ended 1944-45; the table also includes the average for the decennium ended 1943-44:—

WHEAT FOR GRAIN: AREA AND PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	A.C.T.	Australia.
AREA ('000 OMITTED).								
	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.
1938-39 ..	4,651	2,748	442	3,080	3,413	10	2	14,346
1940-41 ..	4,454	2,673	322	2,560	2,625	8	2	12,044
1941-42 ..	3,909	2,757	290	2,326	2,653	6	1	12,002
1942-43 ..	3,933	2,145	335	2,009	1,753	4	1	9,280
1943-44 ..	2,693	1,794	281	1,534	1,567	5	1	7,875
1944-45 ..	2,845	2,142	332	1,623	1,516	4	1	8,463
Average for ten seasons ended								
1943-44 ..	3,937	2,481	315	2,664	2,589	11	2	11,999

PRODUCTION ('000 OMITTED).

	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1938-39 ..	59,898	18,104	8,584	31,675	36,844	205	59	155,369
1940-41 ..	23,933	13,522	5,687	17,856	21,060	140	35	82,233
1941-42 ..	48,500	46,954	3,080	30,511	37,500	145	23	166,713
1942-43 ..	51,693	41,803	5,005	36,526	20,600	73	28	155,728
1943-44 ..	47,500	19,733	5,084	20,691	16,550	122	39	109,719
1944-45 ..	17,134	3,497	6,981	9,244	15,929	93	2	52,880
Average for ten seasons ended								
1943-44 ..	51,635	33,959	4,677	30,954	28,149	238	38	149,650

A graph showing the expansion of the area sown to wheat for grain in Australia since 1860 appears on page 786. A graph showing the distribution in 1924-25 is shown in Official Year Book, No. 22, p. 695 and the distribution of area for 1938-39 is shown in Official Year Book No. 34, p. 451.

(ii) *Production.* Apart from the variations in the area sown, the size of the wheat harvest in Australia is largely determined by the nature of the season and inconsistencies in this respect are reflected in the yearly production.

It should be noted, however, that with improved farming methods, which include the proper tillage of the soil, rotation of crops, the growing of suitable varieties and the application of fertilizers, average yields per acre during four decades to 1940 have shown a continued improvement, and fluctuations in production have become less pronounced.

Australia's wheat production in 1943-44 amounted to 109.7 million bushels representing an average yield of 13.93 bushels per acre. Production for that year represents a decline of about 45 million bushels on that of the previous year and on the average for the five years ended 1938-39. The 1944-45 harvest of only 53 million bushels represented a return of only 6.25 bushels per acre and was less than half that for the previous season.

(iii) *Decennial Averages, 1861-70 to 1935-44.* The following table gives the average area, production and yield per acre for decennial periods since 1861, together with the average wholesale price since 1871. The price quoted represents the arithmetic mean of the annual averages at Melbourne (f.o.r. Williamstown), and may be accepted as fairly representative for Australia.

WHEAT FOR GRAIN : AVERAGE AREA, PRODUCTION AND WHOLESALE PRICE, AUSTRALIA.

Decennium.	Area.	Production.	Yield per Acre.	Average Wholesale Price.
	'000 Acres.	'000 Bushels.	Bushels.	s. d.
1861-70	831	10,622	12.77	(a)
1871-80	1,646	17,711	10.76	5 1
1881-90	3,258	26,992	8.29	4 7
1891-1900	4,087	29,934	7.32	3 8
1901-10	5,711	56,058	9.82	3 10
1911-20	8,928	95,480	10.69	5 0
1921-30	11,291	135,400	11.99	5 8
1931-40	14,176	177,758	12.54	3 4½
1935-44	11,999	149,650	12.47	4 1

(a) Not available.

(iv) *Average Yield.* In the next table will be found the average yield of wheat per acre for specified periods:—

WHEAT FOR GRAIN : YIELD PER ACRE.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	A.C.T.	Australia.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1937-38 ..	12.34	17.93	10.05	13.74	11.97	24.95	24.24	13.63
1938-39 ..	12.88	6.59	19.42	10.28	10.79	20.84	28.74	10.83
1939-40 ..	17.48	15.93	18.77	15.02	13.76	14.37	18.54	15.84
1940-41 ..	5.37	5.06	17.66	6.97	8.02	17.46	17.09	6.50
1941-42 ..	12.22	17.03	10.59	13.12	14.13	22.64	17.64	13.89
1942-43 ..	17.04	19.49	14.95	18.18	11.75	17.76	24.88	16.78
1943-44 ..	17.64	11.00	18.07	13.49	10.56	25.24	27.75	13.93
1944-45 ..	6.02	1.63	21.00	5.70	10.51	24.18	1.22	6.25
Average 10 seasons ended 1943-44	13.11	13.69	14.84	11.62	10.87	21.63	22.01	12.47

Variation in the average yield is chiefly due to the vagaries of the seasons. The best average yields for single seasons since 1901 were obtained in 1920-21, 16.08 bushels; in 1924-25, 15.20 bushels; in 1939-40, 15.84 bushels; and in 1942-43, 16.78 bushels.

(v) *Relation to Population.* The main wheat-producing States of Australia are New South Wales, Victoria, South Australia and Western Australia. Queensland production closely approaches local demands, but Tasmania imports from the mainland to satisfy its needs, though partly in exchange it ships flour made from local wheat which is particularly suitable for biscuits. Normally the production of wheat greatly exceeds Australian requirements, and from half to three-quarters of the crop is exported overseas.

6. *Varieties of Wheat Sown.*—(i) *General.* The breeding of wheat suitable to local conditions has long been established in Australia. Farrar (1845-1905) did invaluable work in pioneering this field and the results of his labour and the continued efforts of those who have since followed him have proved of immense benefit to the wheat industry of Australia. Their efforts have resulted in better average yields, a greater uniformity of sample, with which has accrued certain marketing advantages, as well as an improvement in the quality of wheat grown. More than 1,000 different varieties of Australian wheats have been catalogued by the Council for Scientific and Industrial Research but the number of the principal varieties grown during each season is restricted to about 40,

(ii) *States, 1940.* Particulars of the varieties of wheat sown and the areas thereunder were collected annually up to 1940. Since then the collection has been suspended, but, commencing with 1946-47, the tabulation is to be resumed on a triennial basis. The following table shows for the year 1940 details of the nine principal varieties sown in the four main producing States and the percentage each bears to the total area sown.

WHEAT : PRINCIPAL VARIETIES SOWN, 1940.

New South Wales.		Victoria.		South Australia.		Western Australia.	
Variety.	Per-cent-age.	Variety.	Per-cent-age.	Variety.	Per-cent-age.	Variety.	Per-cent-age.
	%		%		%		%
Bencubbin ..	28.8	Ghurka ..	47.6	Ranee ..	16.7	Bencubbin ..	35.7
Ford ..	18.4	Ranee ..	20.2	Bencubbin ..	16.1	Glucub ..	19.0
Dundee ..	9.1	Dundee ..	8.5	Dundee ..	11.3	Merredin ..	6.8
Nabawa ..	7.4	Free Gallipoli ..	5.8	Sword ..	6.6	Noongar ..	5.4
Waratah ..	4.6	Bencubbin ..	5.3	Nabawa ..	6.5	Nabawa ..	4.0
Gular ..	4.2	Bobin ..	2.1	Waratah ..	5.8	Gluyas Early ..	3.7
Ranee ..	3.8	Regalla ..	1.9	Gluyas ..	5.1	Dundee ..	3.6
Bobin ..	2.5	Sepoy ..	1.4	Ghurka ..	3.6	Ranee ..	3.3
Pusa No. 4 ..	1.9	Rajah ..	1.4	Bobin ..	3.2	Totadgin ..	2.9
All Others ..	19.3	All Others ..	5.8	All Others ..	25.1	All Others ..	15.6
Total ..	100.0	Total ..	100.0	Total ..	100.0	Total ..	100.0

Continued progress in the breeding of new and better wheats has resulted in many changes in the varieties sown. In New South Wales, Bencubbin, previously a variety relatively unimportant outside Western Australia, was the leading wheat sown in 1940. It was also the second variety sown in South Australia, while in Victoria it held only a minor place although the area sown to this wheat was increasing. The leading variety sown in Victoria between 1929 and 1934 was Free Gallipoli, but since 1935 it has been supplanted by Ghurka, Ranee and Dundee. In South Australia, Nabawa came into prominence in 1933, but in 1939, though still relatively important, it ceded the leading position to Ranee and in 1940 occupied fifth place after Bencubbin, Dundee and Sword. Nabawa was the principal variety in Western Australia until it was displaced by Bencubbin in 1934. While this latter variety had occupied only 7 per cent. of the total area sown in Western Australia in 1933, in the year following it occupied no less than 22.5 per cent. and in 1940 it retained its leading position with 35.7 per cent.

7. *Price of Wheat.*—The collapse in the price of wheat which occurred between 1928 and 1931 was chiefly due to the accumulation of stocks in exporting countries. The weighted average price of wheat (shippers' limits f.o.r. ports Sydney, Melbourne and Adelaide) fell from 5s. 1½d. in 1928 to 2s. 4½d. in 1931, a decline of 53 per cent. Subsequent to 1931, prices fluctuated between 2s. 6d. and 3s. per bushel until 1936, when an upward movement coincided with the depletion of excess stocks following crop failures in North America. By December, 1936 prices exceeded 5s. per bushel and remained at that level during 1937. By the end of 1938 world exportable surpluses had again accumulated and prices receded to 2s. 1d. per bushel by August, 1939, the lowest level recorded in Australia.

On 21st September, 1939 the Australian Wheat Board was appointed under war-time legislation and the price of wheat for export or local consumption is determined by that authority. In consequence, the open market for wheat ceased and therefore a price comparison on a pre-war basis is no longer possible. The following table shows the price of wheat in Australia for the periods indicated. The price stated for 1940 and subsequent years represents the approximate average price of wheat exported during those years.

PRICE OF WHEAT : AUSTRALIA.

(WEIGHTED AVERAGE OF SHIPPERS' LIMITS FOR GROWERS' BAGGED AND BULK LOTS, SYDNEY, MELBOURNE AND ADELAIDE.)

Item.	1939. (a)	1940. (b)	1941. (b)	1942. (b)	1943. (b)	1944. (b)
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Price per bushel	2 4	3 11½	4 2	4 2	4 3½	5 4

(a) Average for eight months ended August.

(b) Approximate export price.

8. **Value of the Wheat Crop.**—The estimated value of the wheat crop in each State and in Australia during the seasons 1942-43 and 1943-44 is shown below. The values are on a gross basis at the principal market in each State and are based upon payments made to producers. Pending the finalizing of the accounts of the Australian Wheat Board these values are subject to revision.

WHEAT FOR GRAIN : VALUE OF CROP, (a) 1942-43 and 1943-44.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
	£	£	£	£	£	£	£	£
1942-43.								
Aggregate value ..	11,537,630	9,057,340	1,014,541	7,496,642	4,219,460	14,660	5,481	33,345,754
Value per acre ..	£3/16/1	£4/4/5	£3/0/7	£3/14/8	£2/8/2	£3/11/0	£4/17/5	£3/11/10
1943-44.								
Aggregate value ..	10,735,850	4,434,749	1,038,317	5,185,679	3,592,852	25,100	8,631	25,021,178
Value per acre ..	£3/19/9	£2/9/5	£3/13/10	£3/7/7	£2/5/10	£5/3/9	£6/1/9	£3/3/7

(a) Gross value of total crop, including seed used on farm, but excluding value of straw.

9. **Consumption of Wheat in Australia.**—The estimated annual consumption of wheat for food and the quantity used for seed in Australia during the five years 1939-40 to 1943-44 were as follows:—

AVERAGE ANNUAL HUMAN CONSUMPTION, 1939-40 TO 1943-44.

Flour milled .. .. .	..	..	..	..	..	1,256,526 tons
Less net exports of flour .. ..	..	..	..	564,544 tons		
Less net exports of flour in biscuits				8,124 ..		
						572,668 ..
						683,858
Change in flour stocks .. .. .	..	..	..	..	..	2,648 ..
Net quantity consumed .. .. .	..	..	..	..	..	686,506 ..
Equivalent in terms of wheat .. .. .	..	..	..	..	..	32,952,000 bushels
Net quantity consumed per head of population—						
As flour .. .. .	..	..	..	..	..	(a) 192.5 lb.
Equivalent in terms of wheat .. .. .	..	..	..	..	..	(a) 4.6 bushels

AVERAGE ANNUAL QUANTITY USED FOR SEED, 1939-40 TO 1943-44.

Average area sown for grain, hay and green forage ..	10,978,204 acres
Average quantity of seed used	10,732,646 bushels
Average quantity of seed used per acre	59 lb.
Average quantity of seed used per head of population ..	(a) 1.50 bushels

(a) Subject to revision.

In addition to the above, allowance must be made for wheat fed to poultry and other live stock. The average quantity so used for the five years ended 1943-44 is estimated at 27,798,869 bushels or 3.90 bushels per head of population. Because of the accumulation of wheat due to shipping difficulties arising from the war, the use of wheat

as a stock fodder was encouraged. The objective was to obtain a greater output of eggs and pig meat to meet the increasing demands by the armed services and civilians for which purpose the Commonwealth Government provided a subsidy of 8d. per bushel for wheat sold for fodder purposes.

Following the disastrous drought of 1944-45, however, the surpluses accumulated in earlier years had disappeared by the end of November, 1945. As a result the quantities available as stock feed have been restricted in order to make greater quantities available for exports to meet urgent needs of the war-stricken areas of Europe and Asia.

Grain used for seed has been estimated on the basis of data collected from growers or from estimates supplied by the Departments of Agriculture. The average annual quantity used for seed during the five years ended 1943-44 was 1.50 bushels per head of population, or 59 lb. per acre sown.

The consumption of wheat in Australia for all purposes (human consumption, live-stock and seed) during the five years ended 1943-44 averaged 71,483,803 bushels, or 10.0 bushels per head of population.

10. **Production and Disposal of Wheat in Australia.**—In the following table details are given of the production of wheat and its disposal during each of the cereal years ended 30th November, 1940 to 1945. The particulars respecting local consumption refer to sales actually executed by the Australian Wheat Board whilst those respecting exports represent actual shipments. (For particulars of production and exports from 1860 see graph, p. 787.)

WHEAT: PRODUCTION AND DISPOSAL, AUSTRALIA.

(million bushels).

Particulars.	Year ended 30th November—					
	1940.	1941.	1942.	1943.	1944.	1945.(a)
Opening stocks (including flour as wheat)	21.0	77.5	42.0	104.5	154.0	77.9
Production	210.5	82.2	166.7	155.7	109.7	52.9
Total available supplies ..	231.5	159.7	208.7	260.2	263.7	130.8
Exports—						
Wheat	58.8	26.8	28.7	18.6	54.3	6.1
Flour as wheat	35.5	31.3	15.9	18.6	36.9	12.9
Local Consumption—						
Flour as wheat	34.1	32.2	32.9	34.3	34.5	33.1
Stock feed	10.0	11.2	14.7	20.3	40.7	44.9
Breakfast foods and other uses ..	(b)	1.0	1.0	1.0	3.2	3.1
Seed	13.5	12.8	10.0	8.3	9.0	12.0
Balance retained on farm (excluding seed)	2.1	2.4	1.0	5.1	7.2	7.2
Closing stocks (including flour as wheat)	77.5	42.0	104.5	154.0	77.9	11.5
Total Disposals	231.5	159.7	208.7	260.2	263.7	130.8

(a) Subject to revision.

(b) Included with flour for local consumption.

11. **Exports of Wheat and Flour.**—(i) *Quantities.* The following table shows the exports and net exports of wheat and flour from 1938-39 to 1943-44. For the sake of convenience, flour has been expressed at its equivalent in wheat, 1 ton of flour being taken as equal to 48 bushels of grain. Wheat and flour have been imported to tide over lean seasons on only two occasions since 1900; in 1902-3 the wheat harvest was as low as 12,378,000 bushels, and wheat and flour representing 12,468,000 bushels of wheat were imported, whilst an equivalent of 7,279,000 bushels was imported in 1914-15 to supplement the yield of 25 million bushels produced in that season. During the six years ended

1943-44 exports in terms of wheat ranged between 38,946,000 bushels in 1942-43 and 97,932,000 bushels in 1938-39, the net exports for the period averaging 67,551,000 bushels :—

WHEAT AND FLOUR : EXPORTS FROM AUSTRALIA.

Year.	Exports.			Net Exports.
	Wheat.	Flour.	Total.	
	'000 Bushels.	'000 Eq. Bushels.(a)	'000 Bushels.	'000 Bushels.
1938-39 ..	63,129	34,803	97,932	97,931
1939-40 ..	47,593	32,846	80,439	80,438
1940-41 ..	46,957	37,051	84,008	83,996
1941-42 ..	22,312	19,856	42,168	42,008
1942-43 ..	22,544	16,402	38,946	38,928
1943-44 ..	33,658	28,346	62,004	62,004

(a) Wheat equivalent in bushels of wheat.

(ii) *Destination. (a) Wheat.* The following table gives the exports of wheat to various countries for 1938-39 and each of the four years ended 1943-44, and the average for the five years ended 1938-39.

WHEAT : EXPORTS FROM AUSTRALIA.

('000 omitted.)

Country to which Exported.	Average, Five years ended 1938-39.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
United Kingdom ..	45,195	32,235	24,104	6,900	8,987	321
Eire ..	3,276	2,303	790	..	..	..
India ..	1,662	6,922	699	758	6,360	8,404
Union of South Africa ..	602	1,706	2,046	4,710	1,354	813
Other British Countries	2,246	3,880	4,014	5,072	3,882	9,495
Belgium ..	756	324	..	..	..	..
China ..	6,151	10,621	3,519	..	..	..
Egypt ..	503	389	1,105	3,496	..	3,705
France ..	919	..	..	..	..	..
Germany ..	235	376	..	..	..	..
Italy ..	3,152	..	..	..	..	5,636
Japan ..	6,471	431	3,751	268	..	..
Other Foreign Countries	5,285	3,942	(a) 6,929	1,108	1,961	5,284
Total ..	76,473	63,129	46,957	22,312	22,544	33,658

(a) Includes 253,000 bushels lost at sea.

(b) *Flour.* The following table gives the exports of flour to various countries for 1938-39 and each of the four years ended 1943-44, and the average for the five years ended 1938-39 :—

FLOUR : EXPORTS FROM AUSTRALIA.

Country to which Exported.	Average, Five years ended 1938-39.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
United Kingdom ..	142,912	118,957	80,418	10,480	23,291	..
Ceylon ..	16,915	18,147	19,312	27,301	188,409	315,505
Hong Kong ..	44,966	23,040	36,446	19,386	..	..
Malaya (British) ..	63,309	66,965	90,107	67,153	..	..
Union of South Africa ..	306	132	2,422	7,566	9,712	258
Other British Countries	67,069	86,494	66,523	122,754	86,960	186,906
China ..	50,460	216,878	201,670	5,442	..	..
Egypt ..	24,284	17,153	43,909	50,765	13,949	56,880
Manchuria (a) ..	74,867	..	35,877	..	..	..
Netherlands East Indies	53,751	96,524	114,144	70,547	..	..
Philippine Islands ..	32,690	32,722	18,838	7,472	..	..
Other Foreign Countries	45,544	48,053	62,239	24,816	19,397	30,995
Total ..	647,073	725,065	771,905	413,682	341,718	590,544

(a) Includes Kwantung Peninsula.

12. **Stocks of Wheat and Flour.**—Stocks of wheat and flour held by each State at 30th November in each year 1939 to 1945, and the total in terms of wheat are shown in the following table. The source of these data is the Australian Wheat Board, but, in order to maintain comparability with pre-war figures, adjustments have been made where possible to allow for stocks estimated to be held by merchants, bakers and farmers.

WHEAT AND FLOUR : STOCKS AT 30th NOVEMBER. (a)

30th November.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Wheat (bushels).							
1939	5,059,320	3,435,783	304,199	5,139,508	2,114,766	162,251	16,215,827
1940	18,676,776	15,769,306	840,694	19,876,130	16,190,656	273,148	71,626,710
1941	4,298,718	2,567,321	532,273	11,400,000	16,693,904	284,788	35,777,004
1942	14,173,791	26,819,500	33,456	25,000,000	32,879,349	871,000	99,777,096
1943	24,862,009	37,943,000	307,000	47,200,000	38,942,000	505,000	149,759,000
1944	17,662,000	18,274,000	278,000	19,858,000	17,297,000	378,000	73,747,000
1945	695,000	1,848,000	175,000	900,000	2,191,000	238,000	6,047,000
Flour (tons of 2,000 lb.).							
1939	34,875	27,350	5,292	21,479	8,592	1,695	99,283
1940	44,302	27,457	7,397	17,330	23,007	2,393	121,886
1941	40,277	55,098	5,931	16,250	9,657	1,760	128,973
1942	39,187	29,000	6,476	5,750	14,779	3,813	99,005
1943	20,764	39,007	5,948	15,600	5,972	1,492	88,793
1944	29,747	22,614	3,578	11,300	18,418	385	86,042
1945	28,895	25,664	3,674	42,000	12,419	987	113,639
Total in terms of wheat (bushels.)							
1939	6,733,320	4,748,584	558,215	6,170,500	2,527,182	243,611	20,981,412
1940	20,803,272	17,087,266	1,195,750	20,707,970	17,294,992	388,012	77,477,262
1941	6,232,014	5,212,001	816,961	12,180,000	17,157,440	369,268	41,967,684
1942	16,054,791	28,211,500	344,304	25,276,000	33,588,741	1,054,024	104,529,360
1943	25,858,672	39,815,344	592,504	47,948,800	39,228,656	576,616	154,020,592
1944	19,089,856	19,359,472	449,744	20,400,400	18,181,064	396,480	77,877,016
1945	2,081,960	3,079,872	351,352	2,916,000	2,787,112	285,376	11,501,672

(a) One ton of flour treated is equivalent to 48 bushels of wheat.

13. **Flour Milling.**—Particulars of the grain-milling industry are given in some detail in Chapter XXV. "Manufacturing Industry". The following table summarizes the operation of flour mills in Australia for the years stated.

OPERATIONS OF FLOUR MILLS : AUSTRALIA.

Particulars.	Unit.	1938-39.	1940-41.	1941-42.	1942-43	1943-44.
Number of mills ..	No.	172	171	163	159	167
Number of persons employed ..	"	3,783	3,995	3,513	3,343	3,993
Wheat milled	'000 bus.	66,999	69,242	56,514	51,169	69,559
Output of Flour	" tons	1,373	1,418	1,127	995	1,358
" " Bran	" "	289	292	226	199	278
" " Pollard	" "	284	314	244	210	280
" " Wheatmeal	" "	29	41	57	83	83

14. **Voluntary Wheat Pools.**—Details of voluntary wheat pools operating in Australia are given in previous issues of the Official Year Book. These pools ceased to function when the Australian Wheat Board was created in September, 1939.

15. **War-time Marketing of Wheat.**—(i) *General.* At the outbreak of war in September, 1939, the wheat industry of Australia was experiencing a period of low prices. The price of wheat had fallen to 2s. 1d. per bushel in August, 1939, compared with 3s. 1d. in August, 1938, 5s. 1d. in August, 1937, and 2s. 2d. per bushel in the same month of 1931, which was the lowest monthly quotation during the economic depression of that period.

Apart from low prices, other difficulties created by war conditions were those of marketing and transport. There was also a large accumulation of surplus stocks in the chief exporting countries of the world and this, combined with the natural disability of Australia's remoteness from the main centres of consumption, was another factor adding to a most difficult position.

In view of these circumstances, the Commonwealth Government, under the Wheat Acquisition Regulations, constituted the Australian Wheat Board on the 21st September, 1939 to acquire, with certain exceptions, all wheat held in Australia. The harvest of 1939-40 was also acquired by notification published on 16th November, 1939.

(ii) *Australian Wheat Board.* Under the Wheat Acquisition Regulations the Board was empowered, subject to directions of the Minister for Commerce and Agriculture, to purchase, sell or dispose of wheat or wheat products, manage and control all matters connected with the handling, storage, protection, shipment, etc., of wheat acquired, and such other matters necessary to give effect to the regulations under which it was created.

(iii) *Wheat Acquired and Disposed of.*—(a) *Wheat Acquired.* Particulars of wheat acquired by the Australian Wheat Board up to 31st December, 1945 are shown in the following table :—

AUSTRALIAN WHEAT BOARD : WHEAT ACQUIRED TO 31st DECEMBER, 1945.

'000 Bushels.

Pool.	Harvest.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
1	1938-39a	6,226	2,805	..	5,884	2,925	..	17,840
2 and 3	1939-40	66,689	46,960	6,255	38,130	37,370	41	195,445
4	1940-41	16,919	9,985	5,287	13,818	17,575	75	63,659
5	1941-42	41,242	48,157	2,680	27,740	34,077	78	153,974
6	1942-43	44,797	40,925	4,403	34,708	17,982	22	142,837
7	1943-44	40,981	17,297	4,599	18,153	13,854	56	94,940
8	1944-45	12,166	940	5,997	6,760	13,080	40	38,983
Total to 31st December, 1945		229,020	167,069	29,221	145,193	136,863	312	707,678

(a) Balance only.

(b) *Wheat Disposal.* Details relating to the disposal of this wheat are shown in the following table :—

AUSTRALIAN WHEAT BOARD : DISPOSAL OF WHEAT TO 31st DECEMBER, 1945.

'000 Bushels.

Particulars.	To 31st December, 1940.	1941.	1942.	1943.	1944.	1945.	Total to 31st December, 1945
Sold for export as wheat ..	91,610	6,862	21,169	20,053	54,619	2,742	197,055
Sold for export as flour ..	46,917	20,198	9,738	20,159	37,648	14,897	149,557
Sold for local consumption as flour ..	36,301	31,933	32,630	34,872	33,886	33,373	203,004
Sold for all other purposes ..	12,002	12,011	14,718	20,919	46,969	45,104	151,723

Owing to war-time conditions a great proportion of sales of wheat and flour for export was made in large quantities to the British Government. The Board has shipped a total of 197,055,000 bushels of wheat, and, in addition, has shipped on its own account (i.e., not including millers' shipments), 1,886,000 long tons of flour.

(iv) *Finance.* Under the terms of the Wheat Acquisition Regulations the Minister is empowered to arrange with the Commonwealth Bank for advances to the Board. These advances are guaranteed by the Commonwealth Government.

**AUSTRALIAN WHEAT BOARD : FINANCIAL OPERATIONS
TO 31st DECEMBER, 1945.**

Particulars.	2 Pool.	4 Pool.	5 Pool.	6 Pool.	7 Pool.	8 Pool.
	£	£	£	£	£	£
Paid to growers	31,352,526	11,240,078	27,120,603	27,644,008	18,725,776	7,703,524
Rail freight	3,814,079	1,205,102	3,008,277	2,781,300	1,855,866	760,252
Expenses	3,478,227	1,399,423	3,596,285	3,936,030	3,048,510	1,245,969
Total Payments ..	38,644,832	13,844,603	33,725,165	34,361,338	23,630,152	9,709,745
Value of sales delivered ..	37,744,752	12,851,989	32,676,048	35,348,036	21,317,991	6,825,984
Value of flour tax	900,080	992,614	1,093,343	1,127,283	1,840,000	940,000

(v) *Advances to Growers.*—(a) *Pools Nos. 1 to 5.* The advances made to growers to 31st December, 1945 in each of the first five pools are shown in the following table :—

**WHEAT POOLS Nos. 1 TO 5 : ADVANCES MADE TO GROWERS TO
31st DECEMBER, 1945.**

Particulars.	Amount Paid (l.o.b. Basis).		Amount Paid. (Trucks Terminal Port Basis).					
	No. 1 Pool.		No. 2 Pool.		No. 4 Pool.		No. 5 Pool.	
	Per Bushel.	Total.	Per Bushel.	Total.	Per Bushel.	Total.	Per Bushel.	Total.
	s. d.	£'000.	s. d.	£'000.	s. d.	£'000.	s. d.	£'000.
Advances made to Growers—								
1st Payment(a)—								
Bulk	2 0	1,784	2 8.5	27,350	2 10.5	9,331	2 10	22,429
Bagged	2 0		2 10.5		3 0		3 0	
2nd Payment—								
Bulk	0 6	501	0 4	3,257	0 4	1,062	0 3	1,924
Bagged	0 8		0 4		0 4		0 3	
3rd Payment—								
Bulk	0 1.75	130	0 3	2,442	0 3	795	0 4	2,566
Bagged	0 1.75		0 3		0 3		0 4	
4th Payment—								
Bulk	0 0.158	12	0 1.125	916	0 3	795	0 3	1,924
Bagged	0 0.158		0 1.125		0 3		0 3	
5th Payment—								
Bulk .. ..	..	..	0 1.333	1,086	0 0.75	259	0 1.125	1,185
Bagged .. ..	..		0 1.333		0 1.25		0 2.625	
6th Payment—								
Bulk .. ..	..	..	..	..	0 0.25	171	..	..
Bagged .. ..	..		..		0 1.125		..	
Total—								
Bulk	2 7.908	2,427	63 5.958	35,051	3 9.5	12,413	3 9.125	30,028
Bagged	2 9.908		63 7.958		4 0.375		4 0.625	

(a) From which rail freight was deducted.
bushel less.

(b) No. 3 Pool in New South Wales equals 3d. per bushel less.

(b) *Pools Nos. 6 to 8.* The Wheat Acquisition Regulations, 1939 provide that the Minister for Commerce and Agriculture shall determine the compensation to be paid for wheat acquired by the Commonwealth. During the seasons 1939-40 to 1941-42 an initial payment of compensation was made as wheat was acquired and further payments were made as the realization of the various pools progressed. In August, 1942 the Government gave approval to the proposal to guarantee to wheat-growers compensation at a fixed rate on the first 3,000 bushels delivered by each grower (known as quota wheat), while on the remainder of deliveries (non-quota) compensation at a lower rate would be paid as the wheat was acquired and further payments made as warranted by realizations.

A quota was allotted to each wheat-grower by the Wheat Industry Stabilization Board and, on the wheat delivered by him to the extent of his quota, the grower received the guaranteed payment.

The quota allotted to the majority of wheat-growers was for 3,000 bushels but, in certain instances, growers who operated under a share farming agreement, either as owners or share farmers, or who farmed under family arrangements, received a quota of less than 3,000 bushels.

For the 1942-43 season (No. 6 Pool) the guarantee at country stations was 4s. per bushel for bagged wheat and 3s. 10d. for bulk wheat, while deliveries in excess of quota received an initial payment of 2s. per bushel for bagged wheat and 1s. 10d. per bushel for bulk wheat. Since then, additional payments of compensation on non-quota wheat have been made.

Payment of initial compensation on wheat acquired for the 1943-44 season (No. 7 Pool) was on the same basis, although the payment on both quota and non-quota wheat was increased by 1d. per bushel, this amount being the estimated increased cost for harvesting the 1943-44 crop due to the introduction of an industrial award for labour employed for this purpose.

For the 1944-45 season (No. 8 Pool) the initial compensation for quota wheat was the same as for the previous season while for non-quota wheat it was 10³/₄d. per bushel more than that for the previous year.

The advances made to growers to 31st December, 1945, and proportions of quota and non-quota wheat received in the 1942-43, 1943-44 and 1944-45 seasons were as follows :—

**WHEAT POOLS Nos. 6 TO 8 : ADVANCES MADE TO GROWERS TO
31st DECEMBER, 1945.**

	Amount Paid (Trucks Terminal Port Basis.)			Amount Paid Net at Sidings.					
Particulars.	No. 6 Pool.		No. 7 Pool.		No. 8 Pool.		Percentage of Total Wheat Received.		
	Per Bushel.	Total.	Per Bushel.	Total.	Per Bushel.	Total.	No. 6 Pool.	No. 7 Pool.	No. 8 Pool.
	s. d.	£'000.	s. d.	£'000.	s. d.	£'000.	%	%	%
Advance made to Growers—									
Quota Wheat—									
Bulk .. 3 10 }		19,482	3 11.333 }	15,668	3 11.333 }	6,589	70	82	85
Bagged .. 4 0 }			4 1.333 }		4 1.333 }				
2nd Payment(a) ..									
Bulk .. 0 6.5 }		(b) 1,070	..	..	..	..
Bagged .. 0 7.5 }									
Total Quota									
Wheat—									
Bulk .. 4 4.5 }		20,552	3 11.333 }	15,668	3 11.333 }	6,589	70	82	85
Bagged .. 4 7.5 }			4 1.333 }		4 1.333 }				
Non-quota Wheat—									
1st Payment—									
Bulk .. 1 10 }		4,088	1 11.333 }	1,718	2 10 }	890	30	18	15
Bagged .. 2 0 }			2 1.333 }		3 0 }				
2nd Payment—									
Bulk .. 1 0 }		2,128	1 0 }	847	0 9 }	224			
Bagged .. 1 0 }			1 0 }		0 9 }				
3rd Payment—									
Bulk .. 0 6 }		1,063	0 7 }	492	..	..	
Bagged .. 0 6 }			0 7 }						
4th Payment—									
Bulk .. 0 5 }		883	..	..	..	..
Bagged .. 0 5 }									
5th Payment(a) ..									
Bulk .. 0 8.5 }		(b) 813	..	..	..	..
Bagged .. 0 9.5 }									
Total Non-									
quota Wheat									
Bulk .. 4 5.5 }		8,975	3 6.333 }	3,057	3 7 }	1,114	30	18	15
Bagged .. 4 8.5 }			3 8.333 }		3 9 }				
Total Wheat..		29,527	..	18,725	..	7,703	100	100	100

(a) From which rail freight was deducted.

(b) Estimated.

16. **Special Tabulation of Wheat Holdings.**—With the co-operation of the State Statisticians an extensive analysis was made of the returns collected at the annual agricultural census of 1935-36 in respect of all holdings growing wheat for grain in the principal producing States. The results are published in the Official Year Book No. 33, pp. 374 to 377.

17. **World Area and Production of Wheat.**—The details of the world area and production of wheat given in the following table by countries and continents for the periods shown have been compiled from official sources so far as they are available, but more particularly from the records published by the International Institute of Agriculture and the United States Office of Foreign Agricultural Relations. The harvests shown for countries in the Northern Hemisphere refer to those garnered during the period March to October whilst those for the Southern Hemisphere cover the period November to February following. Figures in parentheses are Office of Foreign Agricultural Relations estimates based on foreign service reports and other information.

WHEAT : AREA, PRODUCTION AND YIELD PER ACRE IN VARIOUS COUNTRIES.

Continent and Country.	Area.(a)			Production.			Yield per acre.		
	Average—		1944.	Average—		1944.	Average—		1944.
	1930-34.	1935-39.		1930-34.	1935-39.		1930-1934.	1935-1939.	
	'000. acres.	'000. acres.	'000. acres.	'000. bushels.	'000. bushels.	'000. bushels.	bus.	bus.	bus.
North America—									
Canada ..	25,682	25,595	23,284	348,560	312,399	417,000	13.6	12.2	17.9
Mexico ..	1,237	1,244	1,362	14,364	14,282	14,568	11.6	11.5	10.7
United States	54,193	57,293	59,309	732,527	758,623	1,078,600	13.5	13.2	18.2
Total (c) ..	81,150	84,150	84,000	1,096,000	1,086,000	1,530,000	..	..	..
Europe—									
Austria ..	535	(d) 616	(b)	12,626	d 15,117	(b)	23.6	d24.5	(b)
Belgium ..	384	402	489	14,726	16,150	19,900	38.3	40.2	40.7
Bulgaria ..	3,078	3,080	(b)	52,864	64,228	(b)	17.2	20.9	(b)
Czechoslovakia	2,129	(d) 2,220	(b)	53,697	d 59,090	(b)	25.2	d26.6	(b)
Denmark ..	259	316	210	11,131	14,358	10,141	43.0	45.4	48.3
Eire ..	43	225	642	1,698	7,689	20,388	39.5	34.2	31.8
France ..	13,280	(d) 12,724	(e) 10,378	305,318	d 292,568	e 256,285	23.0	d23.0	d24.7
Germany ..	5,310	(d) 5,074	(b)	170,212	d 176,654	(b)	32.1	d34.8	(b)
Greece ..	1,612	2,150	(b)	18,414	30,205	(b)	11.4	14.0	(b)
Hungary ..	3,943	4,091	(b)	76,506	d 91,210	(b)	19.4	d22.3	(b)
Italy ..	12,089	12,635	11,853	252,604	279,519	236,485	20.9	22.1	20.0
Netherlands ..	267	338	(375)	11,802	15,209	(13,044)	44.2	45.0	34.8
Poland ..	4,280	4,303	(b)	74,267	77,245	(b)	17.4	18.0	(b)
Portugal ..	1,321	1,227	(b)	18,359	16,066	(12,309)	14.0	13.1	(b)
Rumania ..	7,703	9,053	(b)	103,447	140,816	(b)	13.4	15.6	(b)
Spain ..	11,236	10,220	(8,896)	158,081	d 113,905	(102,239)	14.1	d11.1	11.5
Sweden ..	697	740	682	23,214	26,351	79,941	33.3	35.6	29.2
United Kingdom ..	1,522	1,843	3,220	51,176	62,361	117,200	33.6	33.8	36.4
Yugoslavia ..	5,098	5,349	(b)	79,494	96,750	(b)	15.6	18.1	(b)
Total (c)	76,033	78,313	70,000	1,516,000	1,632,000	1,465,000	..	..	..
Soviet Union(c)	85,798	98,764	(b)	f 860,448	1,050,000	(b)	10.0	10.6	(b)
Africa—									
Algeria ..	3,893	4,184	3,496	32,571	35,201	26,455	8.4	8.4	7.6
Egypt ..	1,560	1,464	1,714	43,128	45,848	34,761	27.6	31.3	20.3
French Morocco	2,887	3,254	2,891	29,509	23,198	17,821	10.2	7.1	6.2
Tunisia ..	1,995	1,901	1,606	12,956	14,965	6,908	6.5	7.9	4.3
Union of South Africa(g) ..	1,516	1,926	2,345	12,301	16,259	14,000	8.1	8.4	6.0
Total(c)	12,630	13,720	13,300	133,000	142,000	108,000	..	..	..

WHEAT: AREA, PRODUCTION AND YIELD PER ACRE IN VARIOUS COUNTRIES—*continued*.

Continent and Country.	Area.(a)			Production.			Yield per acre.		
	Average—		1944.	Average—		1944.	Average—		1944.
	1930-34.	1935-39.		1930-34.	1935-39.		1930-1934.	1935-1939.	
	'000. acres.	'000. acres.	'000. acres.	'000. bushels.	'000. bushels.	'000. bushels.	bus.	bus.	bus.
Asia—									
China ..	(d)49,106	(d)48,120	(b)	d 820,624	d 715,536	(b)	d16.7	d14.9	(b)
Korea ..	809	832	(b)	9,048	10,240	(b)	11.2	12.3	(b)
India ..	33,340	34,492	33,740	355,593	370,660	361,760	10.7	10.7	10.8
Japan ..	1,356	1,738	(b)	36,806	50,133	(b)	27.1	28.8	(b)
Manchuria ..	3,301	2,903	(b)	40,770	35,200	(b)	12.4	12.1	(b)
Syria and Lebanon ..	1,245	1,363	(2,090)	14,638	19,485	20,824	11.8	14.3	10.0
Turkey ..	7,023	8,952	9,243	94,796	135,690	115,683	13.5	15.2	12.5
Total(c) ..	102,300	105,900	107,000	1,456,000	1,442,000	1,530,000	..	..	..
South America—									
Argentina ..	17,709	15,834	11,064	243,932	221,769	150,000	13.8	14.0	13.6
Chile ..	1,763	1,963	1,989	27,355	35,562	33,684	15.5	16.1	16.9
Uruguay ..	1,055	1,210	856	9,876	13,256	6,494	9.4	11.0	7.6
Total(c)	21,800	20,500	15,300	295,000	280,000	205,000	..	..	..
Oceania—									
Australia ..	15,223	12,980	8,428	185,773	154,325	52,068	12.2	11.9	6.2
New Zealand	266	221	187	8,037	7,129	6,500	30.2	32.3	34.8
Total ..	15,489	13,201	8,615	193,810	161,454	58,568	..	..	..
World Total(c)	395,213	414,703	373,000	5,553,000	5,810,000	5,650,000	..	..	..
Totals—									
Northern Hemisphere(c)	356,507	378,866	346,740	5,051,164	5,351,186	5,372,432	14.2	14.1	15.5
Southern Hemisphere(c)	38,706	35,837	26,260	501,836	458,814	277,568	13.0	12.8	10.6
World Total(c)	395,213	414,703	373,000	5,553,000	5,810,000	5,650,000	..	..	..

(a) The figures of areas are, as far as possible, those of areas harvested.

(b) Not available.

(c) Estimated total including the area and production of these countries particulars for which are not shown separately.

(d) Average of less than five years.

(e) Adjusted to include Alsace Lorraine.

(f) Beginning with 1933, production estimates for the Soviet Union have been reduced 15 per cent. to take account of heavy harvesting losses.

(g) Excluding native cultivation.

18. Exports—Principal Countries. —The following table shows the latest available statistics respecting net quantities of wheat exported from the chief exporting countries compared with the period from 1909 to 1913. In the years before the 1914-19 War the U.S.S.R. (Russia) was the outstanding contributor to the world's supply of wheat, followed by the United States of America. Owing to increased demands within their own borders, however, the net exports from both of these countries have since become relatively unimportant. Canada now occupies the foremost position, with Argentina and Australia coming next in order.

Although Australia's production of wheat is little more than 3 per cent. of the world's total, its exports represented just under 18½ per cent. of the quantities shipped during 1934 to 1938, and as an exporting country Australia has made the greatest relative advance since 1913.

WHEAT (a) : NET EXPORTS, PRINCIPAL COUNTRIES.

Country.	Average 1909-13.		1937.	1938.	Average 1934-38.	
	'000 Bushels.	Per cent.	'000 Bushels.	'000 Bushels.	'000 Bushels.	Per cent.
U.S.S.R. (Russia)(b) ..	157,109	23.71	33,803	39,154	22,520	4.04
U.S.A. ..	100,864	15.22	36,416	105,540	43,648	7.83
Argentina ..	95,041	14.34	147,493	75,413	122,739	22.01
Canada ..	89,919	13.57	112,462	125,195	175,407	31.45
British India ..	50,886	7.68	20,043	12,203	8,877	1.59
Australia ..	49,417	7.46	99,658	124,202	102,695	18.41
All Other Countries ..	119,351	18.02	108,431	99,303	81,839	14.67
Total ..	662,587	100.00	558,306	581,010	557,725	100.00
World's Production ..	3,779,479		5,435,863	6,007,964	5,083,344	
Percentage of Australian Net Exports on Total Net Exports		7.46	17.85	21.38	18.41	
Percentage of Australian Production on World's Production ..		2.39	3.46	2.51	3.02	

(a) Includes flour expressed in terms of wheat. (b) The average for 1909-13 is not strictly comparable with the later years shown, owing to changes of frontiers.

19. Imports—Principal Countries.—The quantities of wheat and flour (expressed in terms of wheat) imported into the principal countries for the periods indicated are shown in the following table:—

WHEAT(a) : IMPORTS, PRINCIPAL COUNTRIES.(b)

Country Importing.	Average, 1909-13.		1937.	1938.	Average, 1934-38.	
	'000 Bushels.	Per cent.	'000 Bushels.	'000 Bushels.	'000 Bushels.	Per cent.
United Kingdom ..	219,365	30.42	202,058	208,854	208,749	33.80
Germany ..	89,732	12.44	47,161	48,253	25,606	4.15
Netherlands ..	76,340	10.59	24,058	27,009	22,584	3.66
Belgium ..	73,963	10.26	44,972	38,196	42,856	6.94
Italy ..	57,156	7.93	61,097	10,698	25,891	4.19
France ..	38,682	5.36	18,931	19,332	23,767	3.85
Brazil ..	20,774	2.88	36,226	7,146	29,812	4.83
Egypt ..	7,915	1.10	115	208	586	0.09
Union of South Africa	6,519	0.90	38	2,643	753	0.12
China (c) ..	5,526	0.77	6,914	24,242	27,471	4.45
Japan ..	3,714	0.52	7,555	2,617	11,551	1.87
All Other ..	121,409	16.83	187,599	202,295	198,051	32.05
Total ..	721,095	100.00	636,724	591,493	617,677	100.00

(a) Includes flour expressed in terms of wheat. (b) In some instances the average 1909-13 is not strictly comparable with the other years shown, owing to changes of frontiers. (c) Includes Manchurian ports.

§ 5. Oats.

1. **Area, Production and Average Yield.**—(i) *Area and Production.* Oats are usually next in importance to wheat amongst the grain crops cultivated in Australia, but while wheat grown for grain accounted for 49.52 per cent., oats represented only 8.90 per cent. of the area of crops in 1943-44, being less than hay. The acreage and production of oats for the years 1938-39 to 1943-44 and for the decennium ended 1943-44 are shown in the following table :—

OATS : AREA AND PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	A.C.T.	Australia.
AREA ('000 ACRES).								
1938-39.. ..	399	658	9	267	426	25	..	1,784
1939-40.. ..	405	439	12	349	453	23	I	1,682
1940-41.. ..	237	559	7	473	429	18	..	1,723
1941-42.. ..	304	422	8	291	407	27	I	1,460
1942-43.. ..	431	428	19	263	343	13	..	1,497
1943-44.. ..	374	426	22	225	358	10	..	1,415
Average 10 seasons ended 1943-44..	316	472	11	328	412	23	..	1,562

PRODUCTION ('000 BUSHEL).

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	A.C.T.	Australia.
1938-39.. ..	4,831	2,909	93	2,401	4,668	645	7	15,554
1939-40.. ..	6,904	8,281	200	4,063	5,315	529	10	25,302
1940-41.. ..	1,996	2,624	76	1,829	3,250	416	8	10,109
1941-42.. ..	4,118	8,149	67	3,800	5,325	839	4	22,302
1942-43.. ..	7,338	6,638	277	3,365	3,612	292	10	21,532
1943-44.. ..	7,051	3,705	389	2,294	3,964	299	10	17,712
Average 10 seasons ended 1943-44..	4,819	5,536	141	2,787	4,273	641	7	18,204

The oat crop showed considerable variation during the past decennium, ranging from 10,199,000 bushels in 1940-41 to a record yield of 25,302,000 bushels in 1939-40 with an average for the period of 18,204,000 bushels.

The principal oat-growing State is Victoria, followed closely by New South Wales. These States produce, on the average, more than half the total quantity grown in Australia. Western Australia and South Australia also produce considerable quantities but in Queensland and Tasmania the output is negligible.

Oats are mainly used in Australia as feed grain. The quantity consumed by stock averages about 12 million bushels annually, leaving a balance of about 4 million bushels for seed purposes, about 2 million bushels for oatmeal and a small quantity for the production of spirits and for malting.

(ii) *Average Yield.* The average yield per acre of oats varies considerably in the different States, being highest in Tasmania and lowest in South Australia. Averages for each of the seasons 1938-39, 1940-41 to 1943-44 and for the decennium ended 1943-44 are given in the following table :—

OATS : AVERAGE YIELD PER ACRE.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1938-39	12.09	4.42	10.77	8.99	10.95	25.97	21.95	8.72
1940-41	8.42	4.69	10.61	3.87	7.57	23.73	20.84	5.92
1941-42	13.55	19.31	8.29	13.04	13.08	30.73	5.56	15.27
1942-43	17.01	15.51	14.49	12.81	10.55	22.19	23.29	14.38
1943-44	18.84	8.69	17.60	10.22	11.07	30.69	24.67	12.52
Average for 10 seasons ended 1943-44 ..	15.25	11.72	13.55	8.49	10.37	27.82	18.55	11.65

The smallest average yield per acre ever recorded for Australia was that experienced in the abnormally dry season 1914-15, namely, 5.60 bushels, while the largest in the last ten years was that of the season 1941-42, amounting to 15.27 bushels per acre.

2. **Price of Oats.**—The average wholesale prices in the Melbourne market for oats of good milling quality for the years 1940-41 to 1944-45 in comparison with 1938-39 are given in the following table:—

OATS : MELBOURNE AVERAGE WHOLESALE PRICES.

Particulars.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.	1944-45.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Average price per bushel ..	3 5½	3 2½	2 9½	2 9	3 3	3 9½

3. **Value of Oat Crop.**—The estimated value of the oat crop for the season 1943-44 was as follows:—

OATS : VALUE OF CROP (a), 1943-44.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
	£	£	£	£	£	£	£	£
Aggregate value..	998,810	523,643	81,706	297,825	503,762	63,410	1,408	2,470,564
Value per acre ..	£2/13/5	£1/4/7	£3/13/11	£1/6/6	£1/8/2	£6/10/2	£3/9/11	£1/14/11

(a) Excludes the value of straw.

4. **Imports and Exports.**—The production of oats in Australia is sufficient to admit of a regular export trade. The quantities and values of oats imported into and exported from Australia during the years 1938-39 and 1940-41 to 1943-44 are given hereunder:—

OATS : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.(a)	Quantity.	Value.(a)	Quantity.	Value.(a)
	Bushels.	£.	Bushels.	£.	Bushels.	£.
1938-39 ..	10,428	2,762	117,347	18,866	106,919	16,104
1940-41 ..	1,943	747	159,907	25,339	157,964	24,592
1941-42 ..	2,558	959	78,157	16,418	75,599	15,459
1942-43 ..	1,045	350	284,113	57,075	283,068	56,725
1943-44 ..	643	193	88,040	18,618	87,397	18,425

(a) Australian currency values.

The quantity of oats imported into Australia is usually not very large, although in 1927-28 imports exceeded exports by 460,581 bushels. New Zealand is the chief supplier. The principal countries to which oats were exported during pre-war years were the United Kingdom, New Zealand, Malaya (British), Ceylon, India and Mauritius.

5. **Oatmeal, etc.**—The production of oatmeal in Australia—much of which is consumed locally—amounted in 1943-44 to 309,381 cwt., the quantity of oats used for this purpose being 1,717,761 bushels, or about 10 per cent. of the total production. Oversea trade in this and similar products is small; the exports of oatmeal, including rolled oats, during 1943-44 amounted to 14,039 cwt. There were no imports during the year.

6. **World's Production.**—The world's production of oats for the year 1941, as compiled by the International Institute of Agriculture, amounted to 4,225 million bushels. This quantity was harvested from 140.4 million acres, and represents an average yield of 30 bushels per acre. In comparison with this average return per acre, that of Australia for the same period (15.27 bushels) appears very small. Yields in excess of 40 bushels per acre are not uncommon and some European countries record averages

in excess of 50 bushels per acre. The following table shows the world's production and average yield for the period 1935-39 and for each of the six years ended 1941 which is the latest for which particulars are available :—

OATS: WORLD'S PRODUCTION.

Year.				Area.	Production.	Average Yield per Acre.
				Million Acres.	Million Bushels.	Bushels.
Average 1935-1939				139	4,336	31.26
1936				137	3,290	24.01
1937				138	3,605	26.12
1938				136	3,704	27.24
1939				141	4,400	31.21
1940				143	4,545	31.78
1941				140	4,225	30.09

§ 6. Maize.

1. *States Growing Maize.*—Maize is grown for grain chiefly in Queensland and New South Wales, the area so cropped in these States during the 1943-44 season being 275,959 acres, or 98 per cent. of the total for Australia. Of the balance, Victoria contributed 6,598 acres and Western Australia 105 acres. The climate of Tasmania is generally unsuitable for the growing of maize for grain although 19 acres were sown in this State in 1943-44. In the States mentioned the crop is also grown to a greater or lesser extent for green fodder particularly in connexion with the dairying industry.

2. *Area, Production and Average Yield.*—(i) *Area and Production.* Although maize for grain is grown extensively in other countries, the area sown to maize for grain in Australia has averaged only 310,000 acres during the past decennium. Compared with the previous year, the area in 1943-44 decreased by 1,911 acres, but the acreage sown was considerably less than the comparatively large areas of 414,914 and 400,544 acres sown respectively in 1910-11 and 1927-28.

The area and production of maize for grain in each State for the years 1938-39, 1940-41 to 1943-44 and the average for the decennium ended 1943-44 are given in the following table :—

MAIZE FOR GRAIN: AREA AND PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
AREA.								
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1938-39.. ..	122,201	18,485	183,415	37	8	..	..	324,146
1940-41.. ..	142,147	15,382	205,310	22	10	..	..	362,871
1941-42.. ..	117,262	9,594	174,450	16	38	..	..	301,560
1942-43.. ..	103,591	7,131	173,816	..	46	..	8	284,592
1943-44.. ..	103,237	6,598	172,722	..	105	19	..	282,681
Average 10 seasons ended 1943-44	118,105	15,625	176,004	17	39	2	6	309,798
PRODUCTION ('000 Bushels). (a)								
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1938-39.. ..	2,905	417	3,733	2	..	..	..	7,057
1940-41.. ..	4,044	703	4,444	1	1	..	..	9,193
1941-42.. ..	3,141	306	3,989	..	..	..	..	7,436
1942-43.. ..	2,815	271	3,798	..	1	..	..	6,885
1943-44.. ..	2,769	151	4,512	..	1	..	..	7,433
Average 10 seasons ended 1943-44..	3,178	516	3,725	..	..	..	..	7,419

(a) 56 lb. per bushel.

The greatest production of maize in Australia was recorded in 1910-11, when it amounted to over 13,000,000 bushels. The production in 1940-41 amounted to 9,193,000 bushels, declining to 7,433,000 bushels in 1943-44, the average for the decennium ended 1943-44 being 7,419,000 bushels.

(ii) *Average Yield.* (a) *Australia.* The following table gives particulars of the average yields per acre of the maize crops of the States for the seasons 1938-39, 1940-41 to 1943-44 and for the decennium ended 1943-44 :—

MAIZE FOR GRAIN : AVERAGE YIELD PER ACRE.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1938-39 ..	23.77	22.54	20.36	41.35	11.25	..	..	21.77
1940-41 ..	28.45	45.70	21.65	40.91	42.90	..	..	25.33
1941-42 ..	26.79	31.88	22.86	21.00	7.18	..	..	24.67
1942-43 ..	27.17	38.05	21.85	..	16.24	..	6.00	24.19
1943-44 ..	26.82	22.80	26.12	..	11.89	6.63	..	26.29
Average for 10 seasons ended 1943-44 ..	26.91	33.05	21.16	26.70	12.97	6.63	8.79	23.95

The average for Victoria is generally amongst the highest in the world. The area however, is comparatively small and is situated in specially favourable districts. The average for New South Wales is generally higher than that for Queensland.

(b) *Various Countries.* The average for Australia for the past ten years was 23.95 bushels per acre. During the period 1935-39 the United States of America averaged 25.0 bushels, Argentine Republic 28.0 bushels, Rumania 16.8 bushels, and the U.S.S.R (Russia) 18.9 bushels per acre.

3. *Price of Maize.*—The average wholesale price of maize in the Sydney or Melbourne market for each of the years 1938-39 and 1941-42 to 1944-45 is given in the following table :—

MAIZE : AVERAGE PRICE,

Particulars.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	s. d.	s. d.	s. d.	s. d.	s. d.
Average price per bushel ..	(a) 4 6½	(b) 4 4½	(b) 7 4½	(b) 8 0	(b) 8 4

(a) Sydney.

(b) Melbourne.

4. *Value of Crop.*—The value of the crop for the season 1943-44 was as follows :—

MAIZE FOR GRAIN : VALUE OF CROP, 1943-44.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
Aggregate value	1,015,320	57,837	1,455,593	..	881	70	2,529,701
Value per acre	£9/16/8	£8/15/4	£8/8/7	..	£8/7/10	£3/13/8	£8/19/0

5. *Maize Products.*—Imports of cornflour into Australia are negligible. Exports of cornflour, which prior to the war were very small, increased considerably during the war years, the principal countries of destination being New Zealand and the Pacific Islands. In 1943-44 3,728,505 lb., valued at £84,156, were exported, compared with an annual average of 36,761 lb., valued at £364, during the five years ended 1938-39.

6. **Oversea Imports and Exports.**—The imports of maize into Australia during the five years ended 1943-44 were negligible, averaging 17,000 bushels compared with nearly 600,000 bushels during the five years ended 1929-30. Details of imports and exports for the years 1938-39 and 1940-41 to 1943-44 are as follows:—

MAIZE : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.(a)	Quantity.	Value.(a)	Quantity.	Value.(a)
	Bushels.	£	Bushels.	£	Bushels.	£
1938-39.. ..	54	55	282,018	41,489	281,964	41,434
1940-41.. ..	61	154	779	401	718	247
1941-42.. ..	80	11	1,623	456	1,543	445
1942-43.. ..	9,305	2,377	1,418	546	—7,887	—1,831
1943-44.. ..	613	1,761	5,166	2,321	—4,553	560

NOTE.—The minus sign (—) denotes net imports.

(a) Australian currency values.

7. **World's Production.**—The following table furnishes particulars of the world's acreage, production and average yield per acre of maize for the latest available period according to the data compiled by the International Institute of Agriculture:—

MAIZE : WORLD'S PRODUCTION.

Year.				Area.	Production.	Average Yield per Acre.
				Million Acres.	Million Bushels.	Bushels.
Average 1935-1939	..	..	..	216	4,725	21.88
1937 .. ..	..	..	..	196	4,617	23.56
1938 .. ..	..	..	..	196	4,547	23.20
1939 .. ..	..	..	..	218	5,107	23.43
1940 .. ..	..	..	..	214	5,000	23.36
1941 .. ..	..	..	..	209	5,038	24.11

The United States of America is the most important maize-producing country in the world. Approximately 100,000,000 acres are planted there annually, and in normal seasons more than 2,000 million bushels are reaped, representing about 50 per cent. of the world's production. About 85 per cent. of the production is fed to live stock on farms, 10 per cent. is used for human food, and only a very small fraction—less than 1 per cent.—is exported.

§ 7. Barley.

1. **Area, Production and Average Yield.**—(i) *Area and Production.* The area sown to barley for grain has expanded considerably during the past ten years. Although a substantial decrease occurred during 1942-43 and 1943-44, the average annual area sown for the decennium ended 1943-44 amounted to 613,000 acres, compared with an average of 377,000 acres for the previous ten years. Victoria was originally the principal barley-growing State, but since 1913-14 its place has been taken by South Australia which accounted for 67 per cent. of the Australian acreage in 1943-44. Victoria was next in

importance with 14 per cent., leaving a balance of about 19 per cent. distributed among the other States. The totals here given relate to the areas harvested for grain; small areas are sown for hay, but more considerable quantities are cut for green forage. These, however, are not included in this section. The area and production of barley for grain in the several States for the years 1938-39, 1940-41 to 1943-44 and the average for the decennium ended 1943-44 are shown in the following table :—

BARLEY FOR GRAIN : AREA AND PRODUCTION.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
AREA ('000 Acres).								
1938-39 ..	14	176	14	457	75	9	..	745
1940-41 ..	20	188	7	471	65	6	..	757
1941-42 ..	21	204	8	478	68	5	..	784
1942-43 ..	14	78	8	298	50	3	..	451
1943-44 ..	20	83	13	262	61	4	..	443
Average 10 seasons ended 1943-44	16	138	9	390	54	6	..	613

PRODUCTION ('000 Bushels). (a)

1938-39 ..	218	1,672	246	7,541	945	208	..	10,831
1940-41 ..	176	1,187	122	4,776	725	147	..	7,133
1941-42 ..	304	4,792	117	11,714	959	118	..	18,004
1942-43 ..	223	1,274	165	6,020	533	63	..	8,278
1943-44 ..	380	1,078	250	5,057	723	95	6	7,589
Average 10 seasons ended 1943-44	252	2,252	158	7,015	655	164	1	10,497

(a) 50 lb. per bushel.

(ii) *Average Yield.* The average yield of barley per acre varies considerably in the different States, being as a rule highest in Tasmania and lowest in Western Australia. Details for each State during the seasons 1938-39, 1940-41 to 1943-44 and for the decennium ended 1943-44 are given in the following table :—

BARLEY : YIELD PER ACRE.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1938-39.. ..	15.34	9.50	17.56	16.50	12.63	23.94	..	14.54
1940-41.. ..	8.74	6.33	16.92	10.14	10.53	26.08	..	9.42
1941-42.. ..	14.75	23.45	15.78	24.49	14.03	22.11	..	22.96
1942-43.. ..	15.61	16.36	19.90	20.20	10.78	23.04	..	18.37
1943-44.. ..	18.91	12.95	19.38	19.34	11.80	27.54	17.20	17.14
Average for 10 seasons ended 1943-44 ..	15.95	16.30	16.71	18.01	12.00	26.99	18.52	17.15

South Australia and Victoria were the only States producing more than 1,000,000 bushels on the average during the past decade, the yields being respectively 7,015,000 and 2,252,000 bushels.

(iii) *Malting (2 Row) and Other (6 Row) Barley.* (a) *Season 1943-44.* In the following table details of the area sown to barley of the 2 row or malting variety and 6 row or feed variety, and production therefrom for the season 1943-44 are given by States: -

BARLEY, MALTING (2 ROW) AND OTHER (6 ROW): AREA AND PRODUCTION, 1943-44.

('000 omitted.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Barley—								
Malting (2 Row)	10	70	9	235	30	3	..	357
Other (6 Row)	10	13	4	27	31	1	..	86

Total	..	20	83	13	262	61	4	..	443
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	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
Barley—								
Malting (2 Row)	206	915	181	4,644	363	86	2	6,397
Other (6 Row)	174	163	69	413	360	9	4	1,192
Total	..	380	1,078	250	5,057	723	95	7,589

Taking Australia as a whole, about 81 per cent. of the area of barley for grain in 1943-44 was sown with malting or 2 row barley while the remainder consisted of 6 row or feed varieties. The proportion, however, varied largely in the several States. The disposal of barley during the season 1943-44 was as follows: malt works, 3,915,925 bushels; flour and other grain mills, 739,007 bushels; distilleries, 169,387 bushels; exports, 997,952 bushels; leaving a balance of 1,768,180 bushels for feed and seed.

(b) *Area, Production and Average Yield.* The following table sets out the acreage and production of malting and other barley in Australia during the seasons 1938-39, 1940-41 to 1943-44 and the decennium ended 1943-44:—

BARLEY, MALTING AND OTHER: AREA AND PRODUCTION, AUSTRALIA.

Season.	'000 Acres.			'000 Bushels.			Average Yield per Acre.		
	Malting (2-row).	Other (6-row).	Total.	Malting (2-row).	Other (6-row).	Total.	Malting (2-row).	Other (6-row).	Total.
							Bus.	Bus.	Bus.
1938-39 ..	650	95	745	9,705	1,126	10,831	14.92	11.92	14.54
1940-41 ..	639	118	757	6,185	948	7,133	9.68	8.01	9.42
1941-42 ..	662	122	784	15,713	2,291	18,004	23.72	18.81	22.96
1942-43 ..	357	94	451	6,782	1,496	8,278	19.03	15.88	18.37
1943-44 ..	357	86	443	6,397	1,192	7,589	17.89	13.96	17.14
Average for 10 seasons ended 1943-44 ..	518	95	613	9,110	1,387	10,497	17.58	14.58	17.15

During the past ten seasons the area and production of barley of the malting or 2 row class have been more than five times the corresponding figures for barley of the 6 row or feed class. The average yield per acre differs very little in respect of the two classes, the results for the last ten-yearly period showing a slight increase in the malting variety.

2. *Australian Barley Board.*—The Australian barley crops for the seasons 1939-40, 1940-41 and 1941-42 were acquired by the Australian Barley Board which was created under the National Security Act 1939-1943. For the season 1942-43 and those following the acquisition was restricted to South Australia and Victoria—the main producing States.

Particulars of the barley acquired and sold, and of advances made to growers are given in the following table. All these pools have been finalized.

BARLEY ACQUIRED, SOLD, ETC., AS AT MARCH, 1946.

Pool.	Quantity Acquired.	Quantity Sold.(a)	Total Advances made per Bushel on 2-row, No. 1 Grade.	Total Payments to Growers.
	'000 bushels.	'000 bushels.	s. d.	£
No. 1 (1939-40 crop)	11,616	11,635	3 3.49	1,688,091
No. 2 (1940-41 ")	4,186	4,217	4 3.50	852,485
No. 3 (1941-42 ")	13,223	13,341	3 5.05	2,025,155
No. 4 (1942-43 ")	3,810	3,839	4 3	771,294
No. 5 (1943-44 ")	3,340	3,356	4 5.75	649,587
No. 6 (1944-45 ")	2,171	2,190	5 0	541,484

(a) Includes surplus in out-turn.

3. Prices.—The average prices in the Melbourne market during each of the years shown are given in the following table:—

BARLEY : AVERAGE MELBOURNE PRICES PER BUSHEL.

Particulars.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
	s. d.	s. d.	s. d.	s. d.	s. d.
Malting barley	3 5 $\frac{3}{4}$	4 8 $\frac{1}{2}$	5 0 $\frac{3}{4}$	4 11	5 3
Cape barley	2 11 $\frac{1}{2}$	3 11 $\frac{1}{2}$	4 3 $\frac{3}{4}$	4 3	4 6

4. Value of Barley Crop.—The estimated value of the barley crop for the season 1943-44 and the value per acre are shown in the following table:—

BARLEY FOR GRAIN : VALUE OF CROP (a), 1943-44.

Value.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
	£	£	£	£	£	£	£	£
Total ..	97,410	265,660	40,612	1,553,001	151,595	24,570	1,522	2,134,370
Per acre ..	£4/17/1	£3/3/10	£3/3/0	£5/18/10	£2/9/5	£7/3/0	£4/5/6	£4/16/5

(a) Excludes the value of straw.

5. Imports and Exports:—Australian exports of barley during the five years ended 1943-44 averaged 1,469,000 bushels, South Australia being the principal exporting State. Particulars of the Australian overseas imports and exports for the years 1938-39, and 1940-41 to 1943-44 are shown in the following table:—

BARLEY : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.(a)	Quantity.	Value.(a)	Quantity.	Value.(a)
	'000 Bushels.	£	'000 Bushels.	£	'000 Bushels.	£
1938-39 .. ..	..	24	2,618	341,935	2,618	341,911
1940-41	I	220	913	141,343	912	141,123
1941-42	I	222	1,034	171,690	1,033	171,468
1942-43 .. ..	..	..	511	63,846	511	63,846
1943-44 .. ..	..	4	998	205,790	998	205,786

(a) Australian currency values.

In addition to barley grain, there is also an export of Australian pearl and scotch barley, the total for 1943-44 amounting to 3,904,603 lb., valued at £45,119, and consigned mainly to Ceylon and India.

6. *Malt.*—(i) *Production.* The production of malt in Australia is sufficient to meet local requirements and to provide a margin for export as indicated in the next section. Details of the quantity of grain used and the production of barley malt are given in the following table.

MALT : GRAIN USED AND MALT PRODUCED, AUSTRALIA.

Year.	Barley Malt.		Wheaten and Oaten Malt.	
	Grain used.	Malt produced.	Grain used.	Malt produced.
	Bushels.	Bushels.(a)	Bushels.	Bushels.(a)
1938-39	3,729,730	3,620,909	(b)	111,728
1940-41	4,164,230	4,116,720	(b)	121,569
1941-42	3,943,669	3,849,719	(b)	145,219
1942-43	3,613,086	3,586,422	172,956	149,948
1943-44	3,915,925	3,822,215	221,739	196,153

(a) 40 lb. per bushel.

(b) Not available.

(ii) *Imports and Exports.* In the years before the 1914-19 War the imports of malt into Australia were fairly extensive, the supply being obtained principally from the United Kingdom, but now imports are practically negligible. The production in Australia is more than sufficient to meet local requirements and the surplus is shipped chiefly to the Far East and New Zealand. Details of imports and exports for the years 1938-39 and 1940-41 to 1943-44 are given in the next table :—

MALT : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.(a)	Quantity.	Value.(a)	Quantity.	Value.(a)
	Bushels.	£	Bushels.	£	Bushels.	£
1938-39	140	91	137,473	49,552	137,333	49,461
1940-41	7	12	517,240	198,141	517,233	198,129
1941-42	1,155	639	314,177	132,949	313,022	132,310
1942-43	9,695	1,299	15,588	4,895	5,893	3,596
1943-44 .. .. .	..	..	19,695	9,756	19,695	9,756

(a) Australian currency values.

7. *World's Production.*—In comparison with the barley production of other countries, that of Australia is extremely small. Separate particulars for some of the leading countries during 1942 were not available at date of publication, but the United States produced 420 million bushels and Canada 250 million bushels during that year. Production in the U.S.S.R. (Russia) in 1935 approximated 360 million bushels, while China produced 281 million bushels in 1937.

The following table shows the latest available details of the world's acreage of barley, together with the production and average yield per acre, according to the results compiled by the International Institute of Agriculture :—

BARLEY : WORLD'S PRODUCTION.

Period.					Area.	Production.	Average Yield per Acre.
					Million Acres.	Million Bushels.	Bushels.
Average 1935-1939	..	..	..	..	114.0	2,332	20.46
1938	..	..	..	..	90.7	1,915	21.11
1939	..	..	..	..	117.0	2,400	20.51
1940	..	..	..	..	119.0	2,350	19.75
1941	..	..	..	..	116.0	2,340	20.17
1942	..	..	..	..	120.0	2,585	21.54

§ 8. Rice.

Although experimental rice cultivation was carried on at the Yanco Experimental Farm in New South Wales for a number of years before 1924-25, it was not until that year that an attempt was made to grow the crop on a commercial basis, 16,240 bushels being produced from 153 acres, or an average of 106 bushels per acre. Favoured by tariff protection and high average yields, the development of rice culture in the Murrumbidgee Irrigation Area made rapid progress, and production was equal to Australian requirements.

Consequent upon the outbreak of war in the Pacific in 1941 and the enemy occupation of the rice producing countries north of Australia, the demand for rice was so great as to be beyond the capacity of the industry. From August, 1942 civilian consumption in Australia has been prohibited except in the case of invalids, hospital patients and resident Asiatics, and the total production has been diverted to service needs and for the feeding of natives in the South-West Pacific Area. It has been announced that this restriction is to continue for the 1946-47 crop which has been disposed of to the United Kingdom Ministry of Food.

The area which growers may plant is subject to control. Each year representatives of the Rice Marketing Board, Rice Growers, the Department of Agriculture and the Water Conservation and Irrigation Commission of New South Wales meet to decide the maximum area which growers may plant in the following season. Because of war-time demands the areas sown have been expanded. The extent of any expansion is determined by the limits imposed by the quantity of water available.

For the five years ended 1938-39 the area sown to rice in the Murrumbidgee Irrigation Area averaged 22,900 acres. No marked expansion occurred until after Japan's entry into the war in 1941. The area was increased to 34,300 acres in 1942-43 and to 36,500 acres in 1943-44. This expansion was not sufficient to meet the war-time demand and a new area in the Wakool Irrigation District of New South Wales was developed. In 1943-44, 4,100 acres was sown to rice in this area, bringing the total area for the State and for Australia to 40,690 acres.

The area and production for the year 1944-45 declined, owing to the water shortage, to 24,596 acres and 1,692,747 bushels. This decline occurred in the Murrumbidgee Irrigation Area where the area dropped from 36,500 acres in 1943-44 to 19,800 acres in 1944-45. At Wakool, however, the area sown rose to 4,800 acres.

The average yield per acre—68.82 bushels—in 1944-45 was the lowest since the 1926-27 season.

During the past five years an annual average of 312,500 centals of cleaned and 62,000 centals of uncleaned rice has been exported from Australia, mainly to the United Kingdom, New Zealand, Canada and the Pacific Islands.

Details relating to area, production, and trade since 1934-35 are shown in the following table:—

RICE : AREA, PRODUCTION, AND TRADE, AUSTRALIA.

Year.	No. of Growers. (a)	Area.	Production (Paddy Rice.)		Average Yield (Paddy) per acre.	Imports—		Exports.	
			Quan- tity.	Gross Value. (b)		Un- cleaned.	Cleaned.	Un- cleaned.	Cleaned.
		Acres.	'000. Bushels	£'000.	Bushels.	Centals.	Centals.	Centals.	Centals.
1934-35	..	290	21,746	1,888	383	88.84	67	37,725	28,618
1935-36	..	304	21,715	2,164	409	99.64	963	41,697	9,820
1936-37	..	320	23,384	2,277	458	97.36	26	32,605	2,137
1937-38	..	319	23,737	2,269	459	95.59	9,535	33,315	2,825
1938-39	..	313	23,533	2,775	540	117.92	29	40,019	3,386
1939-40	..	314	24,120	1,858	413	77.02	5	29,765	2,554
1940-41	..	329	24,547	2,240	474	91.26	..	25,722	5,188
1941-42	..	331	23,633	2,192	506	92.75	660	36,737	5,475
1942-43	..	348	34,232	3,084	759	90.11	..	1,800	37,085
1943-44	..	342	40,690	4,015	983	98.67	1	3,258	259,230

(a) New South Wales.

(b) Excludes the value of straw.

(c) 42 lb. per bushel.

The production from several small experimental plots in States other than New South Wales is included in the foregoing table for some years but the quantity is negligible.

§ 9. Other Grain and Pulse Crops.

In addition to the grain crops already specified, the principal other grain and pulse crops grown in Australia are navy beans, blue peas and rye.

The total area of the first two mentioned crops for the season 1943-44 was 56,547 acres, giving a yield of 758,277 bushels, or an average of 13.41 bushels per acre which was less than the average yield for the decennium ended 1943-44, namely 13.46 bushels per acre. Navy beans are grown chiefly in New South Wales, Queensland and Victoria in that order, but in other States the quantity produced is negligible. The production of blue peas is almost entirely restricted to Tasmania which accounts for more than 80 per cent. of the total area and production for Australia. Peas are exported in considerable quantities to the United Kingdom, the chief exporting State being Tasmania.

The total area of rye in Australia during the season 1943-44 was 16,862 acres, yielding 75,937 bushels, or an average of 4.50 bushels per acre, as compared with the average of 9.42 bushels for the last ten seasons. Of the total area sown to rye in 1943-44, about 3.3 per cent. was in New South Wales, 66.4 per cent. in South Australia, and 17.3 per cent. in Victoria.

§ 10. Potatoes.

1. *Area, Production and Average Yield.*—(i) *Area and Production.* Victoria possesses peculiar advantages for the growth of potatoes, as the rainfall is generally satisfactory, and the climate is unfavourable to the spread of Irish blight; consequently the crop is widely grown. The principal areas are the central highlands, the south-western and Gippsland districts. Tasmania comes next in order of acreage sown, but the production exceeded that of Victoria in 1938-39, 1939-40 and 1943-44. New South Wales occupies third place in acreage and production. The area for these three States accounted for 83.82 per cent. of the total for Australia in 1943-44.

The area sown and production of potatoes in each State during the years 1938-39, 1940-41 to 1943-44 and the average for the decennium ended 1943-44 are given hereunder:—

POTATOES: AREA SOWN AND PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	A.C.T.	Australia.
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AREA SOWN.

	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1938-39 ..	16,866	34,396	10,389	4,290	5,355	26,696	56	98,048
1940-41 ..	17,836	44,195	12,586	4,840	6,118	37,364	51	122,990
1941-42 ..	17,685	33,392	8,151	4,783	4,643	30,640	30	99,324
1942-43 ..	24,488	51,757	9,885	7,233	6,399	40,383	64	140,209
1943-44 ..	30,067	70,430	14,609	8,958	7,375	60,500	136	192,075
Average 10 seasons ended 1943-44..	21,486	45,046	11,723	5,292	5,309	36,655	59	125,570

PRODUCTION.

	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1938-39 ..	39,385	81,415	19,183	18,487	26,532	89,330	109	274,441
1940-41 ..	50,388	216,568	21,745	25,583	31,487	114,041	177	459,989
1941-42 ..	38,634	118,454	16,220	24,142	25,329	109,850	98	332,727
1942-43 ..	64,728	195,138	22,438	32,866	32,246	135,930	215	483,561
1943-44 ..	65,655	217,380	30,717	35,991	30,552	217,800	960	599,055
Average 10 seasons ended 1943-44..	52,532	145,607	21,321	23,949	26,685	117,571	215	387,880

The area sown to potatoes averaged 141,000 acres during the ten years ended 1933-34, but it dropped to an average of 126,000 acres during the past decade. Victoria, with a drop of 21,000 acres, was mainly responsible for this decline. After the outbreak of war in the Pacific in December, 1941, the area sown to potatoes rose rapidly and in 1943-44 was 56 per cent. greater than in 1940-41. The area in 1944-45 amounted to almost 242,000 acres.

This expansion was necessary in order to meet the large demand for potatoes by Australian and Allied Servicemen based upon Australia and to maintain supplies for civil needs. As a result, production rose to 599,055 tons in 1943-44, the greatest quantity produced to that date. In 1944-45, however, production rose to a new high level and reached 881,000 tons.

(ii) *Average Yield.* Particulars for each State for the 1938-39, 1940-41 to 1943-44 seasons, and the average for the decennium ended 1943-44, are given hereunder :—

POTATOES : AVERAGE YIELD PER ACRE.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1938-39 ..	2.34	2.37	1.85	4.31	4.95	3.35	1.95	2.80
1940-41 ..	2.83	4.90	1.73	5.29	5.15	3.05	3.47	3.74
1941-42 ..	2.18	3.55	1.99	5.05	5.46	3.59	3.27	3.35
1942-43 ..	2.64	3.77	2.27	4.54	5.04	3.37	3.36	3.45
1943-44 ..	2.18	3.09	2.10	4.02	4.14	3.60	7.06	3.12
Average for 10 seasons ended 1943-44 ..	2.44	3.23	1.82	4.53	5.03	3.27	3.66	3.09

Compared with the average yield per acre obtained in other countries, that returned for Australia is very low; the production in New Zealand, for example, in 1943-44 averaged 5.94 tons per acre from an area of 27,178 acres, as compared with 3.12 tons per acre from 192,075 acres in Australia.

(iii) *Relation to Population.* The average annual production of potatoes for the last five seasons was 61 tons per 1,000 of population. In Tasmania, where this crop is of far greater importance in relation to population than is the case in any other State, the production per head in 1906-7 was nearly a ton, while for the last five seasons it has averaged almost 11½ cwt. Details for each State for the 1938-39 and 1940-41 to 1943-44 seasons are as follows :—

POTATOES : PRODUCTION PER 1,000 OF POPULATION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1938-39 ..	14	43	19	31	57	377	9	40
1940-41 ..	18	113	21	43	67	475	14	65
1941-42 ..	14	61	16	40	54	459	8	47
1942-43 ..	23	99	22	54	69	565	18	67
1943-44 ..	23	109	29	58	63	893	69	82

2. *Gross Value of Potato Crop.*—The estimated gross value of the potato crop of each State for the season 1943-44 is given in the following table :—

POTATOES : VALUE OF CROP, 1943-44.

Value.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
	£	£	£	£	£	£	£	£
Total ..	1,025,040	2,308,993	491,472	314,921	355,040	2,722,500	15,003	7,232,069
Per Acre ..	£34/1/10	£32/15/8	£33/12/10	£35/3/1	£48/2/10	£45/0/0	£110/6/4	£37/13/2

3. *Consumption.*—The annual civilian consumption of potatoes in Australia during the three years ended 1945 averaged 105.5 lb. per head or the equivalent of 311,000 tons. These figures exclude the quantities used for seed, which averaged about 100,000 tons annually over this period. New South Wales, Queensland and, in some seasons, South Australia do not produce the quantities necessary for their requirements and must import from Tasmania and Victoria which have a surplus.

4. **War-time Control.**—Details of the appointment of the Australian Potato Committee, which was created in 1942, and its functions are set out in Chapter XXVIII. "Miscellaneous."

In the following table details of the quantities of potatoes received and the manner of their distribution are given for the years ended 31st October, 1944 and 1945. The quantities shown are those recorded by the Committee and therefore exclude a quantity which does not come within the Committee's control.

AUSTRALIAN POTATO COMMITTEE : RECEIVALS AND DISPOSALS OF POTATOES, AUSTRALIA.

Particulars.	Year ended 31st October—			
	1944.		1945.	
	Tons.	Per cent.	Tons.	Per cent.
Quantity received	441,435	100	619,710	100
Distribution—				
Civilian consumption	317,801	72.0	342,676	55.3
Service consumption	76,859	17.4	69,548	11.2
Exports	5,226	1.2	25,005	4.0
Canning including Meat Packs	16,473	3.7	19,490	3.2
Dehydration	21,758	4.9	59,025	9.5
Loss in weight, stock feed and quantity in transit	3,318	0.8	61,417	9.9
Carried to next year .. .. .	..	..	42,549	6.9
Total	441,435	100	619,710	100

5. **Imports and Exports.**—Under normal conditions small quantities of potatoes are exported, principally to the Pacific Islands and Papua. In case of a shortage in Australia, supplies are usually obtained from New Zealand. Details showing the trade for the years 1938–39 and 1940–41 to 1943–44 are given in the following table :—

POTATOES : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.(a)	Quantity.	Value.(a)	Quantity.	Value.(a)
	Tons.	£	Tons.	£	Tons.	£
1938–39	2	35	1,255	17,443	1,253	17,408
1940–41	5,619	36,301	3,321	36,710	—2,298	409
1941–42	21	223	12,003	114,644	11,982	114,421
1942–43 .. .. .	..	..	1,705	27,064	1,705	27,064
1943–44 .. .. .	..	..	2,956	43,932	2,956	43,932

(a) Australian currency values.

Minus sign (—) signifies net imports.

§ 11. Onions.

1. **Area, Production and Average Yield.**—Australia's supply of onions comes chiefly from Victoria which accounted for 60 per cent. of the total area and quantity produced in 1943-44. Queensland came next with nearly 20 per cent. leaving a balance of about 20 per cent. distributed among the remaining four States. Details of the area, production and average yield per acre are given in the following table for the years 1938-39 and 1940-41 to 1943-44.

ONIONS : AREA, PRODUCTION AND AVERAGE YIELD.

State.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
AREA (Acres.)					
New South Wales ..	105	179	786	1,096	876
Victoria	4,898	5,004	4,497	5,741	6,151
Queensland	1,001	782	1,316	1,843	1,934
South Australia ..	542	582	544	495	702
Western Australia ..	149	192	306	400	445
Tasmania	7	42	47	133	62
Australian Capital Territory	6	1	3	8	5
Total	6,708	6,782	7,499	9,716	10,175

PRODUCTION (Tons).

New South Wales ..	316	714	1,131	3,288	2,774
Victoria	10,404	25,004	23,430	36,500	27,994
Queensland	2,831	1,379	2,797	7,480	7,665
South Australia ..	3,892	4,646	4,300	4,059	5,274
Western Australia ..	874	1,555	1,735	2,946	2,945
Tasmania	37	87	94	373	237
Australian Capital Territory	18	6	15	42	33
Total	18,372	33,391	33,502	54,688	46,922

AVERAGE YIELD PER ACRE (Tons).

New South Wales ..	3.01	3.99	1.44	3.00	3.17
Victoria	2.12	5.00	5.21	6.36	4.55
Queensland	2.83	1.76	2.13	4.06	3.96
South Australia ..	7.18	7.98	7.90	8.20	7.51
Western Australia ..	5.87	8.10	5.67	7.37	6.62
Tasmania	5.29	2.07	2.00	2.80	3.82
Australian Capital Territory	3.00	6.00	5.00	5.25	6.60
Total	2.74	4.92	4.47	5.63	4.61

Details of the area and production of fresh vegetables other than potatoes and onions are given in § 17.

2. **Gross Value of Onion Crop.**—The gross value of the onion crop is given in the following table for the years shown.

ONIONS : GROSS VALUE, AUSTRALIA.

Year.	Total Production.	Gross Value of crop.	Average value per ton.	Average value per acre.
	Tons.	£	£ s. d.	£ s. d.
1938-39	18,372	305,744	16 12 10	45 11 7
1940-41	33,391	456,483	13 13 5	67 6 0
1941-42	33,502	542,839	16 4 1	72 7 9
1942-43	54,688	781,398	14 5 9	80 8 6
1943-44	46,922	695,909	14 16 7	68 7 2

3. **Consumption.**—During the war years the onion requirements of Australian and Allied Services based upon Australia were the first to be met, the balance of production being available for civilian consumption and for exports. Throughout these years, however, production was such that civilian supplies were not seriously limited. The following table furnishes details of the quantity available for consumption by Services and civilians for the years shown.

PRODUCTION AND CONSUMPTION OF ONIONS, AUSTRALIA.

Particulars.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
	Tons.	Tons.	Tons.	Tons.	Tons.
Production	18,372	33,391	33,502	54,688	46,922
Less net exports .. .	+3,548	1,146	+588	439	3,239
Balance available for Civilian and Service consumption ..	21,920	32,245	34,090	54,249	43,683

Plus sign (+) signifies net imports.

4. **Imports and Exports.**—Onions are the only root crop, other than potatoes, in which any considerable oversea trade is carried on by Australia. During the five years ended 1943-44 7,743 tons, valued at £A65,823, were imported, principally from New Zealand, Egypt and Japan, while during the same period the exports, which amounted to 6,644 tons valued at £A74,223, were shipped mainly to the Pacific Islands.

§ 12. Hay.

1. **General.**—(i) *Area and Production.* As already stated, the chief crop in Australia is wheat grown for grain. Next in importance is hay, which for the season 1943-44 averaged 12.85 per cent. of the total area cropped. A graph showing the area sown to hay since 1860 appears on page 786. In most European countries the hay consists almost entirely of meadow and other grasses, but in

Australia a very large proportion consists of oats, wheat and lucerne. The area and production of hay of all kinds in the several States during the years 1938-39 and 1940-41 to 1943-44 and for the decennium ended 1943-44 is given below:—

HAY : AREA AND PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	A.C.T.	Aust.
AREA.								
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1938-39 ..	1,068,925	1,104,558	65,732	519,309	408,276	79,959	3,501	3,250,260
1940-41 ..	715,625	672,955	63,581	403,678	418,486	76,082	3,099	2,353,506
1941-42 ..	714,142	1,007,979	58,190	557,024	325,260	92,636	2,291	2,758,128
1942-43 ..	736,157	788,792	70,025	425,505	253,150	82,062	3,424	2,359,115
1943-44 ..	534,470	740,672	71,992	312,277	282,614	99,283	2,806	2,044,114
Average 10 seasons ended								
1943-44 ..	739,963	1,018,233	68,366	497,833	390,150	85,949	2,775	2,803,275
PRODUCTION.								
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1938-39 ..	1,181,264	892,975	109,761	585,554	437,809	109,533	4,265	3,321,161
1940-41 ..	617,264	580,237	111,746	394,274	375,143	95,180	3,626	2,177,470
1941-42 ..	715,005	1,443,505	103,220	748,313	414,115	147,628	3,102	3,574,888
1942-43 ..	985,743	1,050,107	118,195	568,529	277,957	109,956	5,568	3,116,055
1943-44 ..	735,641	963,103	138,080	407,078	314,359	153,834	4,777	2,716,872
Average 10 seasons ended								
1943-44 ..	878,555	1,221,101	113,260	569,593	412,598	125,437	3,886	3,324,430

Owing to various causes, the principal being the variation in the relative prices of grain and hay and the favourableness or otherwise of the season for a grain crop, the area of hay is liable to fluctuate considerably. The area of hay in Australia during the season 1915-16, 3,597,771 acres, was the largest on record, whilst the average during the decennium ended 1943-44 amounted to 2,803,275 acres.

(ii) *Average Production.* During the last ten years Queensland and Tasmania show the highest average production per acre, although the area sown in these States is small. For the same period the lowest yield for Australia as a whole was that of 18.6 cwt. per acre in 1940-41, while the highest was that of 27.8 cwt. in 1939-40. The average for the decennium was 23.8 cwt. Particulars for the several States for the seasons 1938-39, 1940-41 to 1943-44 and the average of the ten years ended 1943-44 are given hereunder:—

HAY : PRODUCTION PER ACRE.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1938-39 ..	1.11	0.72	1.67	1.13	1.07	1.37	1.22	1.02
1940-41 ..	0.86	0.86	1.76	0.98	0.90	1.25	1.17	0.93
1941-42 ..	1.00	1.43	1.77	1.34	1.27	1.59	1.35	1.30
1942-43 ..	1.34	1.33	1.69	1.34	1.10	1.34	1.63	1.32
1943-44 ..	1.38	1.30	1.92	1.30	1.11	1.55	1.70	1.33
Average for 10 seasons ended 1943-44 ..	1.19	1.20	1.66	1.14	1.06	1.46	1.40	1.19

(iii) *Varieties Grown.* Information in regard to the crops cut for hay is available for all States, and details for 1938-39 and the four seasons ended 1943-44 are given in the following table:—

HAY : VARIOUS KINDS GROWN.

Varieties.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
	Acres.	Acres.	Acres.	Acres.	Acres.
NEW SOUTH WALES—					
Wheaten	559,437	354,833	346,261	287,470	198,066
Oaten	413,002	248,493	289,943	351,985	252,300
Lucerne	92,598	109,164	75,855	91,671	82,179
Other.. ..	3,888	3,135	2,083	5,031	1,925
Total	1,068,925	715,625	714,142	736,157	534,470
VICTORIA—					
Wheaten	258,839	96,852	132,773	67,759	71,467
Oaten	722,528	464,192	691,486	518,040	448,315
Lucerne	(a)36,838	30,443	38,321	36,123	36,040
Other.. ..	86,353	81,468	145,399	166,870	184,850
Total	1,104,558	672,955	1,007,979	788,792	740,672
QUEENSLAND—					
Wheaten	6,628	6,502	8,350	10,678	6,891
Oaten	4,901	2,475	5,710	6,085	6,889
Lucerne	50,228	49,435	37,010	51,715	50,391
Other.. ..	3,975	5,169	7,120	1,547	7,821
Total	65,732	63,581	58,190	70,025	71,992
SOUTH AUSTRALIA—					
Wheaten	227,604	212,284	229,792	152,589	120,129
Oaten	270,425	171,491	303,558	230,901	157,352
Lucerne	4,805	2,209	4,251	4,424	4,157
Other.. ..	16,475	17,694	20,023	37,591	30,639
Total	519,309	403,678	557,624	425,505	312,277
WESTERN AUSTRALIA—					
Wheaten	165,153	228,736	121,951	100,947	117,149
Oaten	204,610	149,899	166,772	118,000	126,093
Lucerne .. ..	..	87	66	239	104
Other.. ..	38,513	39,764	36,477	33,964	39,268
Total	408,276	418,486	325,266	253,150	282,614
TASMANIA—					
Wheaten	979	772	133	1,962	3,879
Oaten	64,310	64,098	73,771	61,542	69,002
Lucerne	3	..	..	694	663
Other.. ..	14,667	11,212	18,732	17,864	25,739
Total	79,959	76,082	92,636	82,062	99,283

(a) Includes barley and rye hay.

Oats are generally the predominant hay crop throughout Australia except in Queensland where lucerne is the chief variety grown. For all States combined the proportions of the areas sown to the principal kinds of hay were 52 per cent. for oaten, 25 per cent. for wheaten, 9 per cent. for lucerne, and 14 per cent. for other hay.

2. *Comparison with Other Countries.*—As already stated, the hay crops of most European countries consist of grasses of various kinds, amongst which clover, lucerne, sainfoin and rye grass occupy prominent places. The statistics of hay production in these countries are not prepared on a uniform basis, consequently any attempt to furnish extensive comparisons would be misleading. It may be noted, however, that in the United Kingdom the production of hay from clover, sainfoin, etc., for the year 1943 amounted to 3,435,000 tons from 2,332,000 acres, while from permanent grasses a yield of 3,238,000 tons of hay was obtained from 2,989,000 acres, giving a total of 6,673,000 tons from 5,321,000 acres, or an average of about 25 cwt. per acre.

3. **Value of Hay Crop.**—The following table shows the value, and the value per acre, of the hay crop of the several States for the season 1943-44 :—

HAY : VALUE OF CROP, 1943-44.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
	£	£	£	£	£	£	£	£
Total Value ..	4,730,380	4,444,794	1,333,073	1,445,829	848,687	655,030	30,581	13,488,374
Value per acre ..	£8/17/0	£6/0/0	£18/10/4	£4/12/7	£3/0/1	£6/11/11	£10/17/2	£6/12/0

4. **Farm Stocks of Hay.**—Details of stocks of hay held on farms are now collected at the annual census of farm production. Particulars of stocks so held at 31st March, 1947 and 1944 are given in the table below.

STOCKS OF HAY HELD ON FARMS.

31st March—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1943 ..	698,332	1,107,137	114,131	499,475	188,740	74,277	2,201	2,684,293
1944 ..	522,294	859,302	107,375	403,002	140,494	89,010	2,246	2,123,723

The disastrous drought which occurred during 1944-45 caused hay stocks to decline to about 1,190,000 tons on 31st March, 1945.

5. **Imports and Exports.**—Under normal conditions hay, whether whole or in the form of chaff, is somewhat bulky for oversea trade, and consequently does not figure largely amongst the imports and exports of Australia. During 1943-44, 23 tons were imported, while the exports amounted to 1,655 tons, valued at £16,917.

§ 13. Green Fodder.

1. **Nature and Extent.**—A considerable area is devoted to the production of green fodder, mainly in connexion with the dairying industry. Under normal conditions the principal crops cut for green fodder are maize, sorghum, rape and lucerne, while small quantities of sugar-cane also are so used. In certain circumstances the area sown to green fodder may be supplemented by areas of cereals sown originally for grain. In an adverse season some cereal crops may show no promise of producing grain or even hay and consequently the area may be turned over to stock for grazing. Particulars concerning the area of green fodder in the several States during each of the years 1938-39 and 1940-41 to 1943-44 are given in the following table :—

GREEN FODDER : AREA.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1938-39	573,569	108,796	448,643	275,988	352,442	28,681	681	1,788,800
1940-41	579,646	130,738	593,521	213,140	436,262	35,045	603	1,988,955
1941-42	578,028	97,158	583,770	182,127	338,485	27,780	968	1,808,316
1942-43	728,404	103,598	578,452	285,587	351,509	62,751	1,518	2,111,819
1943-44	782,265	112,880	600,181	269,645	446,803	51,592	1,436	2,264,802

2. **Value of Green Fodder Crops.**—The value of these crops is variously estimated in the several States, and the Australian total for the season 1943-44 excluding Western Australia may be taken approximately as £4,170,000.

§ 14. Sugar-cane and Sugar-beet.

1. **Sugar-cane.**—(i) *Area.* Sugar-cane for sugar-making purposes is grown only in Queensland and New South Wales, and much more extensively in the former than in the latter State. Thus, of a total area of 336,420 acres of sugar-cane grown for this purpose in Australia for the season 1943-44, there were 320,807 acres, or about 95 per cent., in Queensland. This latter area is made up of 220,932 acres cut for crushing, 13,563 acres cut for plants, and 86,312 acres left to stand-over or young cane on areas not ready for cutting. Sugar-cane growing appears to have commenced in Australia in or about 1862, as the earliest statistical record of sugar-cane as a crop is that which credits Queensland with an area of 20 acres for the season 1862-63. In the following season the New South Wales returns show an area of 2 acres of this crop. The area of cane in New South Wales reached its maximum in 1895-96 with a total of 32,927 acres. Thenceforward, with slight variations, it fell gradually to 10,490 acres in 1918-19, but from that year it expanded until 1924-25, when about 20,000 acres were planted. Since 1924-25, the area has fluctuated between 15,000 acres and 21,000 acres, the average for the decennium ended 1943-44 amounting to 19,719 acres. In Queensland, although fluctuations in area are manifest, the general trend has been upwards, but, because of the contingencies arising from war, the area under sugar in that State has declined since 1940-41. In 1939-40 Queensland's acreage of cane was the highest on record, namely, 353,996 acres. The area of sugar-cane in Australia for the seasons 1938-39 and 1940-41 to 1943-44 and the average for the decennium ended 1943-44 are given in the following table:—

SUGAR-CANE : AREA, ACRES.

Season.	New South Wales.			Queensland.			Australia.			Total.
	Area crushed.	Area of stand-over and newly-planted cane.	Area cut for plants.	Area crushed.	Area of stand-over and newly-planted cane.	Area cut for plants.	Area crushed.	Area of stand-over and newly-planted cane.	Area cut for plants.	
1938-39 ..	10,458	10,772	163	251,847	84,098	11,254	262,305	94,870	11,417	368,592
1940-41 ..	10,192	10,386	184	263,299	75,082	12,460	273,491	85,468	12,664	371,623
1941-42 ..	8,491	9,896	330	246,073	77,062	10,326	254,564	86,958	10,656	352,178
1942-43 ..	9,732	8,958	239	231,256	67,247	11,619	240,988	76,205	11,858	329,051
1943-44 ..	8,240	7,092	281	220,932	86,312	13,563	229,172	93,404	13,844	336,420
Average 10 seasons ended										
1943-44 ..	9,654	9,841	224	241,358	79,731	11,171	251,012	89,572	11,395	351,979

(ii) *Productive and Unproductive Cane.* The areas given in the preceding table do not include the small acreage cut for green fodder which in 1943-44 amounted to 5,651 acres in Queensland. The whole area planted is not cut for crushing during any one season, there being always a considerable amount of young and "stand-over" cane, as well as a small quantity required for plants. Thus the season in which the highest acreage is recorded may not show the greatest area of productive cane cut for crushing.

(iii) *Production of Cane and Sugar.* For Queensland, statistics of the production of sugar-cane are not available prior to the season 1897-98. In that season the total for Australia was 1,073,883 tons, as against the maximum production of 6,313,369 tons in 1939-40.

The average production of cane during the decennium ended 1943-44 was 5,098,889 tons, and of raw sugar 735,519 tons. Particulars of the total production of cane and sugar for the years 1938-39, 1940-41 to 1943-44 and the decennium ended 1943-44 are as follows :—

SUGAR-CANE : PRODUCTION OF CANE AND SUGAR.

Season.	New South Wales.		Queensland.		Australia.	
	Cane.	Sugar.	Cane.	Sugar.	Cane.	Sugar.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1938-39	336,701	45,022	5,342,193	778,064	5,678,894	823,086
1940-41	342,548	47,041	5,180,868	759,416	5,523,416	806,457
1941-42	359,433	48,336	4,794,237	697,644	5,153,670	745,980
1942-43	338,013	44,290	4,353,488	605,609	4,691,501	649,899
1943-44	290,364	37,442	3,397,617	486,423	3,687,981	523,865
Average 10 seasons ended 1943-44 ..	308,639	41,014	4,790,250	694,505	5,098,889	735,519

The production of raw sugar in Australia in 1943-44 amounted to 523,865 tons manufactured from 3,687,981 tons of cane, the maximum production being 928,621 tons recorded in 1939-40. Official data are not available regarding the total number engaged in the sugar industry in Queensland, other than the number of separate holdings growing cane which in 1943-44 totalled 6,871, and employees in sugar mills who in 1943-44 numbered 4,751. In the report of the Sugar Inquiry Committee, 1931, however, it was stated that the number of persons employed in all branches of the industry was 28,737. In addition, there is the employment afforded in New South Wales, particulars of which are not available, but the number is probably in the vicinity of 2,000.

(iv) *Average Production of Cane Sugar.* Owing to climatic variation, comparison between the average yields of cane per productive acre in Queensland and New South Wales cannot be accurately made except on an annual basis. In New South Wales the crop matures in from 20 to 24 months, whereas in Queensland a period of from 12 to 14 months is sufficient. Allowing for the disparity in maturing periods the average annual yields of cane per productive acre during the decennium ended 1943-44 were 17.46 tons for New South Wales, and 17.28 tons for Queensland. Similarly, the yields of sugar per acre crushed for the same period were estimated at 2.34 tons and 2.65 tons respectively. Apart from the consideration mentioned above, the yields of cane and sugar per acre crushed for Australia for the ten years ended 1943-44 were 20.31 tons and 2.93 tons respectively, as compared with 18.39 tons and 2.45 tons for the decennium ended 1933-34.

SUGAR-CANE AND SUGAR : YIELD PER ACRE.

Season.	New South Wales.			Queensland.			Australia.		
	Cane per acre Crushed.	Sugar per acre Crushed.	Cane to each ton of Sugar.	Cane per acre Crushed.	Sugar per acre Crushed.	Cane to each ton of Sugar.	Cane per acre Crushed.	Sugar per acre Crushed.	Cane to each ton of Sugar.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1938-39	32.20	4.31	7.48	21.21	3.09	6.87	21.65	3.14	6.90
1940-41	33.61	4.62	7.28	19.68	2.88	6.82	20.20	2.95	6.85
1941-42	42.33	5.69	7.43	19.48	2.84	6.87	20.25	2.93	6.91
1942-43	34.73	4.55	7.63	18.83	2.62	7.19	19.47	2.70	7.22
1943-44	35.24	4.54	7.76	15.38	2.21	6.99	16.09	2.29	7.04
Average 10 seasons ended 1943-44 ..	31.97	4.25	7.53	19.85	2.88	6.90	20.31	2.93	6.93

(v) *Quality of Cane.* The quantity of cane required to produce a ton of sugar varies with the variety planted, the district and the season. For the decennium ended 1943-44 it required on the average 6.93 tons of cane to produce 1 ton of sugar, or 14.43 per cent. of its total weight, as compared with 7.49 tons for the decennium ended 1933-34. As the result of the systematic study of cane culture in Queensland and improvements in field and mill methods the sugar content of the cane has been considerably increased, and in 1937-38 only 6.78 tons of cane were required to produce one ton of sugar. It is believed that this is the highest sugar content obtained anywhere in the world.

The Bureau of Sugar Experiment Stations in Queensland is rendering useful service to the sugar industry by advocating and demonstrating better methods of cultivation, the more scientific use of fertilizers, lime, etc., and by producing and distributing improved varieties of cane.

(vi) *Relation to Population.* The yield of raw sugar in Australia during recent years was more than sufficient to supply local requirements, the average annual production during the last five years amounting to 230 lb. per head of population. Details for the years 1938-39 and 1940-41 to 1943-44 are as follows :—

RAW SUGAR : PRODUCTION PER HEAD OF POPULATION.

State.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
	lb.	lb.	lb.	lb.	lb.
New South Wales ..	37	38	38	35	29
Queensland ..	1,731	1,651	1,510	1,306	1,030
Australia ..	266	256	234	202	161

(vii) *Consumption.* The average annual consumption of raw sugar during the five years ended 1943-44 was estimated at 459,456 tons, equal to 144.28 lb. of raw sugar or 137.78 lb. of refined sugar per head of population. The sugar content of jam, preserved fruit, milk, &c., exported during the period has been deducted in arriving at the figures quoted. The quantity of sugar used in factories during 1938-39 and the four years ended 1943-44 is shown in the following table, the figures including, where necessary, estimates of consumption based on the sugar content of the finished product. Particulars of sugar used in establishments not classified as factories are not available, and consequently the quantities shown below are deficient to that extent.

SUGAR : CONSUMPTION IN FACTORIES, AUSTRALIA.

Factories.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
	Tons.	Tons.	Tons.	Tons.	Tons.
Aerated Waters and Cordials	11,810	13,306	17,982	21,167	24,593
Bacon Factories ..	267	322	335	356	357
Biscuits and Bakeries, including Cakes and Pastry	18,801	20,515	22,057	24,881	26,648
Breweries ..	16,733	19,669	21,307	19,612	20,132
Cereal Foods ..	1,287	1,329	1,484	1,267	1,422
Condensed and Concentrated Milk ..	6,889	9,943	17,430	12,605	12,973
Confectionery, Ice Cream, &c.	26,926	30,193	28,806	33,023	38,979
Jams, Jellies and Preserved Fruit(a) ..	40,537	59,020	61,058	71,041	71,610
Wineries and Distilleries (b)	..	..	17,956	19,265	49,479
Other ..	583	1,785	760	2,942	926
Total ..	123,833	156,082	189,775	206,159	247,119

(a) Includes Condiments, Pickles, etc.

(b) Raw Sugar.

(viii) *Control of Cane Production in Queensland.* By agreement between the Commonwealth and Queensland Governments an Australian price has been fixed for refined sugar of £33 4s. per ton in each of the capital cities. This is substantially above the world price which has prevailed during recent years, and the proceeds of Australian sales are pooled with the proceeds of exports. This pooling is made possible by the acquisition by the Queensland Government of all sugar produced in the State, under legislation which has been in force since 1915. The small New South Wales production (about 5 per cent. of the whole) is also acquired by the Queensland Sugar Board by private agreement.

Sugar production, which in 1923 had scarcely been sufficient to cover Australian requirements, grew very rapidly in subsequent years. In 1925 the Queensland Government took steps to prevent, as a general rule, new land from being opened up for cane production. At that date 56 per cent. of the sugar production was consumed in Australia and 44 per cent. exported. After 1925 production remained stable for some years. In 1929 the operations of the pool, which had hitherto received at a uniform price all sugar offered it by the mills, were re-organized. After 1929, mills received the full pool price for sugar up to the amount of their previous maximum production only. Any further supplies were acquired at export price only.

Between 1929 and 1939 the export price was generally less than half the pool price. In spite of this, production increased by 72 per cent. during that period. In 1939, in view of the fact that the International Sugar Agreements imposed certain restrictions on the volume of Australian exports, the Queensland Parliament passed further legislation limiting the pool to 737,000 tons. Any production in excess of this was to be acquired at a penalty price of 10s. per ton. This tonnage was divided up in quotas between the mills, on the understanding that the mills would allocate quotas of production to individual farmers. Proclamations issued by the Queensland Government, however, permitted the harvesting of the whole of the 1939 and 1940 crops. Crops for subsequent years have been similarly treated.

2. *Sugar-beet.*—Victoria is the only State growing beet for sugar, although 5 tons of sugar-beet were produced from 1 acre in Tasmania during 1942-43. Particulars in regard to acreage and production for Victoria for the five years and for the decennium ended 1943-44 are shown in the following table:—

SUGAR-BEET : AREA AND PRODUCTION, VICTORIA.

Particulars.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.	Average ton seasons ended 1943-44.
Area harvested .. acres	4,235	3,588	2,866	955	836	3,043
Production .. tons	42,903	27,031	24,546	5,997	6,975	27,884
Average per acre .. "	10.13	7.53	8.56	6.28	8.34	9.16
Sugar produced .. "	6,250	3,279	2,769	678	704	3,511

The area under sugar-beet declined steadily during the war years and in 1943-44 was only one-fifth of that in 1939-40. Much of this decline was due to the diversion, as a war-time measure, of many areas to the production of vegetables. The mill at Maffra ceased operations at the end of 1943 but efforts are being made to re-open it to treat the 1946-47 crop.

3. **Sugar Bounties.**—Reference is made to the various Acts in connexion with sugar bounties and sugar excise tariffs in early issues of the Official Year Book. (See No. 6, pp. 394-6.)

4. **Sugar Purchase by Commonwealth Government.**—The steps taken by the Commonwealth Government in connexion with this matter are also referred to in the Official Year Book. (See No. 18, p. 720.)

5. **Sugar Agreement in Australia.**—**Embargo on Imports, etc.**—By agreement between the Commonwealth and Queensland Governments in 1925 the embargo on the importation of foreign sugar, which was first introduced in September, 1915, was extended for three years from 1st September, 1925. The price of raw sugar needed for home consumption was fixed at £27 per ton, £1 of which was to defray administrative and general expenses of the Sugar Board and to provide special concessions to certain consumers of sugar. The embargo was later extended for a further period of three years until 1st August, 1931, on practically the same terms as previously.

In response to representations the Commonwealth Government appointed a Committee of Inquiry on the 23rd August, 1930 to report on the industry. The Committee consisted of eight members representing the various interests concerned. The reports of the Committee were made available in March, 1931 and the renewal of the sugar agreement, with certain modifications, was recommended. The terms of the new agreement closely followed those previously in force, particularly as regards the embargo on imports and the fixation of prices. The assistance to the fruit industry was increased from an average of £180,000 per annum to £315,000 by way of grant from the sugar industry. The agreement was signed on 1st June, 1931, and was to remain in force for a period of five years from 1st September, 1931. In 1932, however, conferences arranged between the Commonwealth Government and representatives of the industry agreed to a reduction of $\frac{1}{4}$ d. per lb. in the retail price of sugar from 1st January, 1933 until the end of the period of the agreement (31st August, 1936). It was also decided to reduce the amount of the assistance to the fruit industry to £200,000. A renewal of the agreement for a period of five years commencing 1st September, 1936, was negotiated between the Commonwealth and Queensland Governments in July, 1935, and in May, 1940 the agreement was extended for a further period of five years to 31st August, 1946. The wholesale and retail prices of sugar remain unaltered but the concession to the fruit industry was increased to £216,000 in 1936.

6. **International Sugar Agreement.**—Delegates of 21 Nations representing 90 per cent. of producers met in London and entered into an agreement on 6th May, 1937, providing for the regulation of the production and marketing of sugar in the world during a period of five years from 1st September, 1937. The object of the agreement was to assure an adequate supply of sugar at a price not exceeding the cost of production, including a reasonable profit, to efficient producers. For this purpose, each country was given a basic annual export quota which would be increased in proportion to any expansion in sugar consumption. By this means and by limitations on stocks and measures to encourage more consumption it is expected that the International Sugar Council, which has been established to administer the agreement, will be able to hold in proper balance the supplies and requirements of sugar. The export quota originally allotted to Australia was 400,000 long tons. This figure may be increased, however, where the delivery from any British Colony falls short of its quota. In such circumstances, the deficiency may be allocated among other producing countries of the Empire including Australia.

This agreement, which normally would have expired on 31st August, 1942, has proved of great benefit to Australia. In 1943 fourteen of the original 21 Nations signed a protocol continuing the agreement for another two years ending 31st August, 1944. Two further protocols have since been signed, each extending the agreement for a period of one year. Since the outbreak of war in September, 1939, certain clauses of the agreement have been declared inoperative because of the difficulties arising therefrom.

7. **Net Return for Sugar Crop.**—Calculations by the Sugar Board regarding the disposal of the crop, net value of exports and the average price realized during each of the years 1938-39 and 1940-41 to 1943-44 will be found in the following table :—

SUGAR : NET RETURNS, AUSTRALIA.

Year.	Percentage Exported. (a)	Net Value of Exports per Ton. (a)	Average Price per Ton for Whole Crop. (a)	Estimated Value of Crop.
	Per cent.	£ s. d.	£ s. d.	£
1938-39	55.78	8 4 3	15 3 11	12,806,376
1940-41	50.43	11 5 6	17 2 11	14,093,668
1941-42	40.83	10 18 9	17 18 11	13,770,584
1942-43	31.92	10 16 3	18 18 5	11,762,432
1943-44	17.12	13 2 6	20 18 4	12,554,579

(a) As supplied by the Queensland Sugar Board.

The estimated value of the raw sugar produced has been taken from the audited accounts of the Queensland Sugar Board. The values stated represent the gross receipts from sales in Australia and overseas less refining costs, freight, administrative charges, etc., and export charges, but not deducting concessions to the fruit industry and other rebates which in 1943-44 amounted to £216,012. The value thus obtained represents the net market value of all raw sugar sold, which, since 1933, has been divided between the growers and millers in the approximate proportions of 70 per cent. and 30 per cent. respectively. Prior to that year the distribution was about two-thirds to the grower and one-third to the miller.

8. **Imports and Exports of Sugar.**—Particulars showing the imports and exports of cane sugar for the years 1938-39 and 1940-41 to 1943-44 are as follows :—

SUGAR : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Tons.	£A.	Tons.	£A.	Tons.	£A.
1938-39.. ..	42	883	443,021	4,177,741	442,979	4,176,858
1940-41	14	362	374,707	4,880,402	374,693	4,880,040
1941-42	1,922	46,250	198,789	2,636,430	196,867	2,590,180
1942-43 .. ..	..	5	66,332	1,001,353	66,332	1,001,348
1943-44 .. ..	..	..	95,826	1,523,786	95,826	1,523,786

9. **Sugar By-products.**—Large quantities of molasses are produced as a by-product in the sugar mills. Details for a series of years of the quantities produced and the proportions used for distilling, fuel, manure and other purposes will be found in Chapter XXV. "Manufacturing Industry". A distillation plant erected at Sarina, near Mackay, was opened in 1927 and produces power alcohol of excellent quality. Other distilleries were erected after the outbreak of war in 1939.

Boards are now being made from the residuum of crushed fibre after the removal of the sugar content from sugar-cane. These boards are used in the building industry for walls and ceilings and possess high insulating and sound-absorbing properties.

10. **Sugar Prices.**—The prices of sugar in Australia from 1915 to 1946 are shown in the following table. During recent years the prices were fixed in accordance with the agreements referred to on page 826.

SUGAR : PRICES FOR CONSUMPTION IN AUSTRALIA.

Date of Determination.	Raw Sugar.		Refined Sugar.	
	Price to Grower and Miller per Ton.		Wholesale Price per Ton.	Retail Price per lb.
	£	s. d.	£ s. d.	d.
19.7.15 to 15.1.16	18	0 0	25 10 0	3
16.1.16 to 30.6.17	18	0 0	29 5 0	3½
1.7.17 to 24.3.20	21	0 0	29 5 0	3½
25.3.20 to 30.6.20	21	0 0	49 0 0	6
1.7.20 to 31.10.22	30	6 8	49 0 0	6
1.11.22 to 30.6.23	30	6 8	42 0 0	5
1.7.23 to 21.10.23	27	0 0	42 0 0	5
22.10.23 to 31.8.25	26	0 0	37 11 4	4½
1.9.25 to 31.8.31	(a) 26	10 0	37 6 8	4½
1.9.31 to 4.1.33	26	0 0	37 6 8	4½
5.1.33 to 31.8.36	24	0 0	33 4 0	4
1.9.36 to 31.8.41	24	0 0	33 4 0	4
1.9.41 to 31.8.46	(b) 24	0 0	33 4 0	4

(a) The price of raw sugar for the years 1925 to 1943 was estimated at from £24 to £26 10s. per ton, but as the result of the values received for the surpluses exported, the actual price obtained in 1925-26 was £19 10s. 7d.; 1926-27, £24 10s. 10d.; 1927-28, £22 0s. 4d.; 1928-29, £20 17s. 11d.; 1929-30, £20 8s. 2d.; 1930-31, £19 12s. 11d.; 1931-32, £18 2s. 11d.; 1932-33, £18 17s. 9d.; 1933-34, £16 6s. 3d.; 1934-35, £15 13s. 9d.; 1935-36, £16 5s. 11d.; 1936-37, £15 7s. 4d.; 1937-38, £15 7s. 6d.; 1938-39, £15 3s. 11d.; 1939-40, £15 17s. 7d.; 1940-41, £17 2s. 11d.; 1941-42, £17 18s. 11d.; 1942-43, £18 18s. 5d.; and 1943-44, £20 18s. 4d.

(b) In 1944 the equivalent price was reduced to £22 2s. per ton due to increased costs through war.

11. **War-time Arrangements.**—After the outbreak of war in September, 1939, the British Ministry of Food concluded arrangements with the Queensland Government for the purchase of Australia's surplus production of raw sugar for the season 1939. The price was fixed at £Stg.7 10s. per ton at United Kingdom ports plus the preference on dominion sugar of £Stg.3 15s. per ton under the existing tariff.

Similar agreements were negotiated for the disposal of the surplus raw sugar in subsequent seasons, the price per ton in sterling currency being as follows:—1940 and 1941, £12 12s. 6d.; 1942, £13 15s.; 1943, £14 5s.; 1944, £15 5s. and 1945, £17 5s., inclusive of the existing preference of £3 15s. From the 1st January, 1946 the price was further increased by £Stg.2 5s. per ton and the United Kingdom agreed to absorb an additional 12s. 6d. per ton on the freight cost.

§ 15. Vineyards.

1. **Progress of Cultivation.**—(i) *Area of Vineyards.* The date of introduction of the vine into Australia has been variously set down by different investigators, the years 1815 and 1828 being principally favoured. It would seem, however, that plants were brought out with the first fleet in 1788, consequently the Australian vine is as old as Australian settlement. As already mentioned, a report by Governor Hunter gives the area of vines in 1797 as 8 acres. From New South Wales the cultivation spread to Victoria and South Australia, and these States have now far outstripped New South Wales in the area of this crop. In Western Australia an expansion of area under vineyards has

occurred in recent years, but in Queensland, where vine-growing has been carried on for many years, little progress has been made. The purposes for which grapes are grown in Australia are (a) for wine-making; (b) for table use; and (c) for drying. The total area of vines in the several States during each of the years 1938-39 and 1940-41 to 1943-44 and the average for the decennium ended 1943-44 are given in the following table:—

VINEYARDS : AREA.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	A.C.T.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres
1938-39 ..	16,979	42,436	2,793	58,020	6,277	2	126,507
1940-41 ..	16,478	43,238	2,903	58,416	8,841	3	129,879
1941-42 ..	16,445	42,554	3,687	58,039	9,011	3	129,739
1942-43 ..	16,302	42,634	3,040	58,202	10,126	3	130,307
1943-44 ..	16,001	42,711	2,998	57,261	10,240	2	129,213
Average 10 seasons ended 1943-44	16,298	42,221	2,796	56,928	7,505	..	125,748

The total area of vines in Australia has shown a substantial expansion since 1860. This development has been interrupted periodically, decreases occurring in 1896, in the years between 1904 and 1910, and in 1914. Since the latter year the area increased without interruption from about 61,000 acres to more than 114,000 acres in 1924-25, due largely to the planting of varieties suitable for drying. Subsequently the area fluctuated around 114,000 acres but commenced to increase again in 1933-34. Since then the expansion has continued, reaching the record area of 130,307 acres in 1942-43. There was a slight decline to 129,213 acres in 1943-44.

(ii) *Report on the Wine Industry.* An investigation into conditions in the wine industry was undertaken by the Commonwealth Director of Development and the Senior Inspector of Excise, Department of Trade and Customs, and a comprehensive report was presented to Parliament on the 17th July, 1931.

During 1944, the Minister for Trade and Customs referred a number of matters to the Tariff Board for inquiry and report. Subsequently four reports were issued during 1944-45 which dealt with the following subjects viz. :—Use of cane sugar in Sauterne, spirit for fortification of wine, prices for grapes and fortifying spirit and control of liquor order.

(iii) *Wine Production, Bounties, etc.* The production of wine has not increased as rapidly as the suitability of soil and climate would appear to warrant. Production for the decennium ended 1943-44 averaged 17.6 million gallons compared with 16.0 million gallons produced during the ten years ended 1933-34. This seems to arise from two causes. In the first place, Australians are not a wine-drinking people; it is estimated that prior to the 1939-45 War they consumed approximately $2\frac{1}{2}$ million gallons only or 0.3 gallons per head per annum and consequently the local market is restricted. On this point, however, the quantity of wine released annually for home consumption during the war years has increased to $6\frac{1}{2}$ million liquid gallons or the equivalent of about 1 gallon per head of population. Secondly, the comparatively new and unknown wines of Australia must compete in the markets of the old world with the well-known and long-established brands from other countries. Continued efforts are being made to bring the Australian wines under notice both here and abroad and with the assistance of a Commonwealth bounty on the export of fortified wine of specified strength, the industry has been greatly stimulated. Further development, however, was interrupted by the war. The loss of the United Kingdom market due to the lack of shipping space placed the wine industry in a most difficult position. In addition, wine was not a priority cargo and until shipping conditions improve the problem of exporting wine, in quantity, will continue.

Particulars of the Wine Export Bounty are shown in § 19 hereafter. The Wine Export Bounty Act 1930 which provided for payment at the rate of 1s. 9d. per gallon was replaced in 1934 by a new Act which fixed the rate at 1s. 3d. per gallon for the two years ending 28th February, 1937, and thereafter at a reduction of 1d. per gallon for each succeeding year until 1940. The payment of a bounty at the rate of 1s. per gallon for a period of five years to 28th February, 1945, subsequently extended to 28th February, 1947, was provided for under the Wine Export Bounty Act of 1939-1944.

The quantity of wine produced in the several States during the 1938-39 and 1940-41 to 1943-44 seasons, together with the average for the decennium ended 1943-44, is given in the following table:—

WINE : PRODUCTION.

('000 omitted.)

Season.	N.S.W.	Victoria.	Queensland.	S. Aust.	W. Aust.	Australia.
	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.
1938-39 ..	2,502	825	45	11,147	439	14,958
1940-41 ..	3,229	1,208	23	11,067	470	15,997
1941-42 ..	3,112	1,162	32	11,329	410	16,045
1942-43 ..	2,721	1,382	44	15,203	514	19,864
1943-44 ..	3,530	1,320	27	14,435	553	19,865
Average 10 seasons ended						
1943-44 ..	2,693	1,323	32	13,121	440	17,609

2. Imports and Exports of Wine.—(i) *Imports.* The principal countries of origin of wine imported into Australia were, before the War, France, Spain, Portugal and Italy, the bulk of the sparkling wines coming from France. The imports for the four years ended 1943-44 compared with 1938-39 are given hereunder:—

WINE : IMPORTS INTO AUSTRALIA.

Year.	Quantity.			Value.		
	Sparkling.	Other.	Total.	Sparkling.	Other.	Total.
	Gallons.	Gallons.	Gallons.	£A.	£A.	£A.
1938-39 ..	10,759	30,451	41,210	23,303	22,792	46,095
1940-41 ..	545	5,791	6,336	1,411	5,445	6,856
1941-42 ..	74	3,112	3,186	212	2,887	3,099
1942-43 ..	3	59	62	63	82	145
1943-44 ..	..	755	755	..	1,319	1,319

(ii) *Exports.* Before the 1939-45 War practically all wine exported was sent to the United Kingdom, only 200,000 gallons (approximately) being sent elsewhere. The main countries of destination of the 1,245,401 gallons exported in 1943-44 were:—New Caledonia (320,396 gallons, £68,339); New Zealand (135,852 gallons, £45,508); and Canada (181,535 gallons, £94,570).

Because of the prior claims of other commodities to shipping space, the export of wine to the United Kingdom virtually ceased during the war.

Exports for the years 1938-39 and 1940-41 to 1943-44 are given in the following table:—

WINE : EXPORTS FROM AUSTRALIA.

Year.	Quantity.			Value.		
	Sparkling.	Other.	Total.	Sparkling.	Other.	Total.
	Gallons.	Gallons.	Gallons.	£A.	£A.	£A.
1938-39 ..	2,369	3,718,135	3,720,504	3,507	978,570	982,077
1940-41 ..	13,368	1,644,639	1,658,007	20,366	496,047	516,413
1941-42 ..	17,000	1,376,803	1,393,803	26,444	471,420	497,864
1942-43 ..	9,918	807,097	817,015	12,136	284,907	297,043
1943-44 ..	10,306	1,235,095	1,245,401	6,966	415,966	422,932

3. Other Viticultural Products.—(i) *Table Grapes*. Grapes for table use are grown in all the States except Tasmania, but the area cultivated to this variety is only about 7 per cent. of the productive area of grapes. The greatest development in the industry has taken place in the drying of raisins and currants, particularly in Victoria and South Australia. The quantities of table grapes grown during the seasons 1938-39 and 1940-41 to 1943-44 are as follows:—

TABLE GRAPES : PRODUCTION.

Season.		N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Australia.
		Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1938-39 ..	..	4,034	4,089	2,313	985	3,139	14,560
1940-41 ..	..	4,869	4,256	2,496	1,598	2,528	15,747
1941-42 ..	..	4,573	3,659	3,234	1,131	2,308	14,905
1942-43 ..	..	5,186	4,123	2,621	1,218	3,194	16,342
1943-44 ..	..	5,325	4,067	2,696	1,150	3,240	16,478

(ii) *Raisins and Currants*. The quantities of raisins (sultanas and lexias) and currants dried during each of the seasons 1938-39 and 1940-41 to 1944-45 and the decennium ended 1943-44 are given in the following table. The production of 103,410 tons for the 1943-44 season represents the greatest output recorded in any year. The production for 1944-45 declined to 68,765 tons consequent upon severe drought conditions and some damage by frost.

RAISINS(a) AND CURRANTS : PRODUCTION.

Season.		N. S. Wales.		Victoria.		South Aust.		Western Aust.		Australia.	
		Raisins.	Currants.	Raisins.	Currants.	Raisins.	Currants.	Raisins.	Currants.	Raisins.	Currants.
		Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1938-39 ..	..	4,837	1,239	33,659	10,301	11,656	9,569	737	2,762	50,889	23,871
1940-41 ..	..	6,777	1,102	41,342	6,629	15,517	6,745	487	2,467	64,123	16,943
1941-42 ..	..	8,023	1,351	47,520	8,738	15,889	8,814	470	2,420	71,809	21,353
1942-43 ..	..	7,538	1,300	40,439	8,620	15,263	9,253	674	3,329	62,904	21,562
1943-44 ..	..	7,719	1,488	48,851	9,987	20,739	10,457	835	3,334	78,144	25,266
1944-45(b)	..	5,053	1,064	32,851	6,817	12,445	6,909	674	2,892	51,023	17,742
Average 10 seasons ended	..	6,059	1,190	41,603	8,470	14,479	8,787	678	2,406	62,819	22,853
1943-44 ..	..									

(a) Sultanas and Lexias.

(b) Subject to revision.

4. **Production and Disposals.**—As the production of dried vine fruit is far in excess of Australia's requirements, considerable quantities are available for export overseas. Details of the quantities disposed of in Australia and overseas are given in the table below. The quantities disposed of to civilians are inclusive of amounts delivered to biscuit manufacturers, bakeries, etc. as well as retail sales for household consumption.

DRIED VINE FRUIT : QUANTITIES DISPOSED OF, AUSTRALIA.

Season ended December—	Australia.			Overseas.					Grand Total.
	Civilians.	Services.	Total.	United King- dom.	Canada.	New Zea- land.	Other Coun- tries.	Total.	
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1942.. ..	16,500	5,000	21,500	44,000	20,000	5,650	1,050	70,700	92,200
1943.. ..	20,921	4,283	25,204	42,810	15,830	5,770	761	65,171	90,375
1944.. ..	29,951	5,120	35,071	44,570	16,000	6,756	1,820	69,146	104,217
1945.. ..	20,604	3,636	24,240	21,500	15,000	5,550	1,746	43,796	68,036

5. **Exports of Raisins and Currants.**—The following table gives the overseas exports of raisins and currants during each of the five years ended 1944-45 compared with 1938-39. As the quantities of imports were practically negligible they have been omitted.

RAISINS AND CURRANTS : EXPORTS, AUSTRALIA.

Year.	Raisins.		Currants.		Total Raisins and Currants.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Tons.	£A.	Tons.	£A.	Tons.	£A.
1938-39 ..	49,550	1,974,045	23,759	772,966	73,309	2,747,011
1940-41 ..	47,793	1,790,990	16,124	574,648	63,917	2,365,638
1941-42 ..	49,341	1,958,522	14,706	462,665	64,047	2,421,187
1942-43 ..	46,731	1,813,713	11,240	358,039	57,971	2,171,752
1943-44 ..	56,039	2,449,050	18,994	714,315	75,033	3,163,365
1944-45 ..	56,418	2,647,719	20,994	828,330	77,412	3,476,049

Since 1912 Australia has not only produced sufficient raisins and currants for home consumption but has been able to maintain a large export trade. The chief countries importing Australian raisins and currants are the United Kingdom, Canada and New Zealand, the quantities exported thereto in 1944-45 being respectively 45,506, 25,955 and 4,748 tons or 59, 34 and 6 per cent. respectively. Exports to Canada increased from 4,600 tons in 1928-29 to 16,944 tons in 1939-40, and to 25,955 tons in 1944-45.

6. **War-time Contract.**—At the outbreak of war in 1939 the Government of the United Kingdom purchased all available surpluses after provision had been made for Canadian and New Zealand requirements. During the 1944 and 1945 seasons prices fixed under these contracts represented a substantial increase over pre-war prices.

7. **Post-war Contract.**—A long term agreement has been negotiated between the Governments of the Commonwealth and the United Kingdom for the purchase of the exportable surplus of the dried vine fruit crop for the 1946, 1947 and 1948 seasons. The contract prices for currants, sultanas and lexias sold to the United Kingdom during the war years 1942 to 1945, as well as the prices fixed under the post-war contract covering the years 1946 to 1948, are given in the following table.

DRIED VINE FRUITS : CONTRACT PRICES PER TON TO UNITED KINGDOM.

(Basis f.o.b. Australian Ports.)

Fruit.	Grade.	1942.	1943.	1944.	1945.	1946 to 1948.
		£A. s. d.	£A. s. d.	£A. s. d.	£A. s. d.	£A. s. d.
Currants ..	1 Crown and upwards ..	35 0 0	37 16 3	41 11 3	43 2 6	50 0 0
Sultanas ..	1 Crown and upwards ..	47 3 9	51 5 0	55 0 0	56 11 3	65 0 0
Lexias ..	4 and 5 Crown ..	49 7 6	50 12 6	54 7 6	55 18 9	64 7 6

§ 16. Orchards and Fruit-Gardens.

1. **Area.**—The greatest area of orchards and fruit-gardens was attained in 1933-34 when 281,989 acres were planted. The total area of orchards and fruit-gardens in the several States during the years 1938-39 and 1940-41 to 1943-44 is given in the following table :—

ORCHARDS AND FRUIT-GARDENS : AREA.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	A.C.T.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1938-39..	85,598	71,300	32,641	28,943	22,029	31,580	50	97	272,238
1940-41..	85,420	69,756	32,426	29,392	21,905	30,834	15	150	269,898
1941-42..	83,427	69,413	31,520	29,528	21,593	31,266	..	133	266,880
1942-43..	79,363	69,776	29,029	29,478	21,266	31,337	..	135	260,384
1943-44..	81,283	70,024	31,878	25,521	21,154	32,135	..	105	262,100

2. **Varieties of Crops.**—(i) *General.* The varieties grown differ in various parts of the States, ranging from such fruits as the pineapple, papaw, mango and guava of the tropics to the strawberry, the raspberry and the currant of the colder parts of the temperate zone. In New South Wales, citrus fruits (oranges, lemons, etc.) occupy the leading position, although apples, peaches, plums, pears, cherries and bananas are extensively grown. The principal varieties grown in Victoria are the apple, peach, pear, orange, plum and apricot. In Queensland, the banana, pineapple, apple, orange, peach and plum are the varieties most largely cultivated. In South Australia, in addition to the apple, orange, apricot, plum, peach and pear, the almond and the olive are extensively grown. In Western Australia, the apple, orange, pear, plum, peach, apricot and fig are the chief varieties. In Tasmania, the apple occupies nearly four-fifths of the fruit-growing area, but small fruits, such as the currant, raspberry and gooseberry, are extensively grown, while the balance of the area is taken up with the pear, apricot, plum and cherry. The following tables give the acreage—bearing and non-bearing—of the principal kinds of fruit, and the quantity and value of fruit produced.

(ii) *Area.* The table hereunder shows the total acreage for 1943-44 :—

ORCHARDS AND FRUIT-GARDENS : AREA, 1943-44.

Fruit.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	A.C.T.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Apples ..	14,550	22,360	5,561	7,802	12,740	22,890	66	86,069
Apricots ..	1,900	4,841	317	3,419	519	1,353	4	12,353
Bananas ..	12,868	..	7,450	..	186	..	..	20,504
Cherries ..	2,662	1,487	7	1,051	13	96	3	5,319
Citrus—								
Oranges ..	21,948	4,244	3,009	4,006	3,200	..	..	36,407
Mandarins ..	2,857	102	1,787	124	187	..	..	5,057
Lemons ..	3,443	1,919	487	356	538	..	..	6,743
Other ..	838	236	453	147	172	..	..	1,846
Nuts ..	903	631	271	2,507	326	..	5	4,643
Peaches ..	8,287	14,854	1,545	1,361	812	131	6	26,996
Pears ..	3,524	13,504	387	1,689	933	2,381	7	22,425
Pineapples ..	193	..	6,349	..	..	..	..	7,113
Plums and Prunes	4,895	3,510	1,238	1,809	899	382	9	12,742
Other Small Fruits	16	604	125	343	13	4,846	..	5,947
Other Fruits ..	2,299	1,732	2,301	907	616	56	5	7,916
Total ..	81,283	70,024	31,878	25,521	21,154	32,135	105	262,100

(iii) *Production.*—(a) *Quantities.* The production in 1943-44 is shown in the next table :—

ORCHARDS AND FRUIT-GARDENS : PRODUCTION, 1943-44.

Fruit.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	A.C.T.	Australia.
Apples .. bushel	1,233,758	2,326,224	482,326	894,838	1,560,441	8,022,800	2,888	14,523,275
Apricots ..	246,008	464,934	25,953	536,734	61,514	97,210	236	1,432,589
Bananas ..	1,426,404	..	662,183	..	19,795	..	..	2,108,382
Cherries ..	213,229	64,689	492	52,065	720	3,670	42	334,907
Citrus—								
Oranges ..	2,251,293	569,798	237,606	670,273	279,707	..	..	4,008,677
Mandarins ..	231,114	20,000	147,911	19,698	15,973	..	..	434,696
Lemons ..	298,011	162,000	58,883	50,577	88,710	..	..	658,181
Other ..	111,230	48,000	37,400	16,888	16,832	..	..	230,350
Nuts .. lb.	292,865	196,121	79,898	1,007,104	56,641	..	589	1,633,218
Peaches .. bushel	752,357	1,469,813	126,661	149,229	66,798	8,090	472	2,573,420
Pears ..	319,976	1,421,706	34,529	240,804	76,059	590,400	89	2,683,563
Pineapples .. dozen	25,287	..	2,000,844	..	..	..	..	2,026,131
Plums and Prunes bushel	486,854	246,392	115,317	153,831	81,873	86,560	264	1,171,091
Other Small Fruits cwt.	290	13,199	1,372	6,295	128	157,235	..	178,519

(b) *Gross Values.* The gross value of production for the various classes of fruit for the year 1943-44 is given in the following table :—

ORCHARDS AND FRUIT-GARDENS : GROSS VALUE OF PRODUCTION, 1943-44.

Fruit.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	A.C.T.	Australia.
	£	£	£	£	£	£	£	£
Apples ..	941,510	1,104,956	325,271	628,637	388,591	1,478,200	2,202	4,869,367
Apricots ..	300,880	209,220	26,598	279,115	52,970	30,820	289	899,892
Bananas ..	2,036,590	..	842,261	..	58,232	..	..	2,937,083
Cherries ..	497,070	84,096	1,640	98,924	3,938	2,540	98	688,306
Citrus—								
Oranges ..	1,965,770	560,743	211,530	743,616	171,321	..	..	3,652,980
Mandarins ..	191,620	26,000	136,201	55,680	16,572	..	..	426,073
Lemons ..	231,110	109,350	32,516	48,259	51,378	..	..	472,613
Other ..	75,840	26,400	21,428	12,666	10,099	..	..	146,433
Nuts ..	16,660	13,124	3,023	50,038	7,336	..	33	90,214
Peaches ..	515,410	606,298	93,949	71,361	67,911	1,990	323	1,357,242
Pears ..	251,200	586,454	19,887	95,893	24,253	137,040	70	1,114,797
Pineapples ..	20,860	..	881,329	..	..	..	..	902,189
Plums and Prunes	464,790	84,777	83,400	98,175	62,997	22,660	266	817,065
Other Small Fruits	1,410	50,606	19,772	29,681	9,768	306,760	..	417,997
Other Fruits ..	195,730	60,376	188,110	47,426	40,762	2,070	160	534,634
Total ..	7,706,450	3,522,400	2,886,915	2,259,471	966,128	1,982,080	3,441	19,326,885

3. **Principal Fruit Crops.**—(i) *Area.* The area in Australia of the principal fruit crops for each of the years 1938-39 and 1940-41 to 1943-44 is shown hereunder :—

PRINCIPAL FRUIT CROPS : AREA, BEARING AND NON-BEARING, AUSTRALIA.

Year.	Apples.	Bananas.	Citrus Fruits.	Peaches.	Pears.	Plums.(a)
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1938-39 ..	97,351	22,900	46,955	25,054	21,587	14,119
1940-41 ..	92,363	23,676	47,415	25,764	23,404	13,152
1941-42 ..	90,379	21,169	47,843	26,839	22,710	13,501
1942-43 ..	87,672	20,158	50,311	25,109	22,196	12,443
1943-44 ..	86,069	20,504	50,053	26,996	22,425	12,742

(a) Includes prunes.

(ii) *Production*—(a) *Quantities.* In the next table the production of the principal varieties of fruit grown in Australia is shown for the same periods :—

PRINCIPAL FRUIT CROPS : PRODUCTION IN AUSTRALIA.

('000 omitted.)

Year.	Apples.	Bananas.	Citrus Fruits.	Peaches.	Pears.	Plums.(a)
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1938-39 ..	11,126	2,494	5,644	2,523	2,300	771
1940-41 ..	12,165	2,610	5,472	2,369	2,921	950
1941-42 ..	10,531	2,491	5,196	2,121	2,208	851
1942-43 ..	9,851	2,408	4,180	2,036	2,837	927
1943-44 ..	14,523	2,108	5,332	2,573	2,684	1,171

(a) Includes prunes.

(b) *Values.* The gross value of the principal fruit crops during the periods mentioned is given in the following table :—

PRINCIPAL FRUIT CROPS : GROSS VALUE OF PRODUCTION, AUSTRALIA.

Year.	Apples.	Bananas.	Citrus Fruits.	Peaches.	Pears.	Plums.(a)
	£	£	£	£	£	£
1938-39 ..	3,357,817	1,206,879	1,916,912	737,791	674,887	232,681
1940-41 ..	2,521,185	1,250,663	1,894,067	737,647	779,416	297,332
1941-42 ..	2,446,589	1,456,056	2,615,223	816,595	679,518	379,725
1942-43 ..	3,364,691	2,131,309	3,281,856	1,084,036	1,098,863	595,374
1943-44 ..	4,869,367	2,937,083	4,698,099	1,357,242	1,114,797	817,065

(a) Includes prunes.

4. **Imports and Exports of Fruit.**—(i) *General.* The imports of fresh fruits into Australia are negligible whilst those of dried fruits consist mainly of dates.

A considerable export trade in both fresh and dried fruits is carried on by Australia with oversea countries. The value of the shipments in 1943-44 amounted to £315,329 and £3,294,553 respectively. Apples formerly constituted the bulk of the fresh fruit exported although the exports of citrus fruits and pears were fairly considerable.

Shipments of raisins and currants have increased greatly since 1914-15, and are mainly responsible for the growth in the dried fruits exports although dried tree fruits also figure amongst the exports.

(ii) *Fresh Fruits.* Particulars of the Australian oversea trade in fresh fruits are shown in the following table:—

FRESH FRUITS : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Centals.	£A.	Centals.	£A.	Centals.	£A.
1938-39 ..	69,883	29,843	2,752,437	2,022,936	2,682,554	1,993,093
1940-41 ..	36,028	15,892	351,626	393,098	315,598	377,206
1941-42 ..	16,719	8,977	226,746	238,919	210,027	229,942
1942-43 ..	1,959	2,370	133,284	191,129	131,325	188,759
1943-44 ..	596	1,118	135,081	315,329	134,485	314,211

(iii) *Exports of Apples, Pears and Citrus Fruits.* The quantity and value of apples, pears and citrus fruits exported during each of the years 1938-39 and 1940-41 to 1943-44 are shown in the following table:—

APPLES, PEARS AND CITRUS FRUITS : EXPORTS FROM AUSTRALIA.

Year.	Apples.		Pears.		Citrus Fruits.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Centals.	£A.	Centals.	£A.	Centals.	£A.
1938-39 ..	2,111,139	1,433,440	294,930	264,805	274,229	221,184
1940-41 ..	87,651	105,140	3,371	5,143	231,843	222,381
1941-42 ..	31,448	41,699	809	1,123	190,348	191,141
1942-43 ..	10,434	19,024	1,073	1,974	117,908	165,830
1943-44 ..	21,401	45,563	2,988	7,594	107,386	255,703

(iv) *Dried Fruits.* The quantity and value of overseas imports and exports of dried fruits, other than raisins and currants, for the four years ended 1943-44 compared with 1938-39 are shown below. Normally, the bulk of the imports consist mainly of dates obtained almost entirely from Iraq. This trade was prohibited during the war years but has since been resumed.

DRIED FRUITS^(a) : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Imports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	'000 lb.	£A.	'000 lb.	£A.	'000 lb.	£A.
1938-39 ..	11,097	80,752	3,927	117,814	7,170	(b) 37,062
1940-41 ..	9,349	108,920	3,565	129,741	5,784	(b) 20,821
1941-42 ..	7,735	102,245	5,428	175,736	2,307	(b) 73,491
1942-43 ..	23	323	2,428	105,265	(c) 2,405	(b) 104,942
1943-44 ..	19	303	3,631	131,188	(c) 3,612	(b) 130,885

(a) Excludes raisins and currants referred to separately under Vineyards, § 15 par. 5. (b) Export values exceed imports. (c) Export quantities exceed imports.

(v) *Jams and Jellies.* Jams and jellies were exported in large quantities during the 1914-19 War, the record shipment of 79,277,560 lb., valued at £1,847,970, being dispatched from Australia during 1918-19. Exports during the 1939-45 War did not reach the record dimensions obtained during the 1914-19 War. Australian and Allied Services based upon Australia had prior claims upon Australia's output of jam, with the result that the exportable surplus, after meeting civil needs, was much reduced. Exports reached their highest level in 1940-41, before the outbreak of war in the Pacific, when nearly 45 million lb. of jam were exported. Peak production occurred in 1942-43 and amounted to 169 million lb. compared with the peak of 136 million lb. in 1918-19. Particulars of imports and exports during each of the years 1938-39 and 1940-41 to 1943-44 are as follows:—

JAMS AND JELLIES : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	'000 lb.	£A.	'000 lb.	£A.	'000 lb.	£A.
1938-39 ..	81	3,253	13,872	262,486	13,791	259,233
1940-41 ..	13	470	44,909	929,458	44,896	928,988
1941-42 ..	21	877	40,514	960,937	40,493	960,060
1942-43 ..	42	1,359	18,276	498,097	18,234	496,738
1943-44 ..	..	5	21,638	557,161	21,638	557,156

(vi) *Preserved Fruit.* (a) *Imports and Exports.* The total value of fruit and vegetables, preserved or partly preserved in liquid or pulped, imported into Australia during 1943-44 was £stg.1,998, or £2,502 in Australian currency. Oversea exports in 1943-44 were as follows:—Apricots, 1,203,957 lb., £30,968; peaches, 8,350,983 lb., £210,075; pears, 4,816,942 lb., £122,714; pineapples, 785,768 lb., £20,001; and other, 7,162,471 lb., £199,568; or a total shipment valued at £583,326.

(b) *War-time Contract.* Two contracts were negotiated between the Commonwealth and United Kingdom Governments whereby the latter undertook to purchase the exportable surplus of the 1940 pack of Australian canned apricots, peaches and pears. Similar arrangements were concluded for the purchase of the 1941 pack but Australian and Allied Services based upon Australia took most of the 1942, 1943 and 1944 packs. This had the effect of limiting civilian supplies to a quota basis as well as reducing the quantity available for exports.

5. *Apple and Pear Acquisition.*—Prior to the 1939-45 War the stabilization of the apple and pear industry was dependent upon its export trade; normally little more than half of Australia's production was needed to meet the local demand. The interruption to exports due to the war imposed on the industry a severe strain, to meet which the Commonwealth Government introduced the National Security (Apple and Pear Acquisition) Regulations providing for the acquisition, with guaranteed payments by the way of advances to growers, and the orderly marketing of the crop. In 1940 the Australian Apple and Pear Board was appointed as the marketing authority and a Marketing Committee of the Board, with a committee in each State, was set up to supervise the whole of the marketing arrangements in Australia and for export. Later the Marketing Committee was superseded and the Australian Apple and Pear Marketing Board became the authority to handle and market all apples and pears acquired. The following table gives the total quantity of fruit acquired each year and the amounts paid growers as

advances on the basis of "bare" fruit in the orchard. All packing and marketing costs such as cases, packing, transport, cool storage, selling, etc. were paid for by the Board :—

State.	1940—No. 1 Acquisition.		1941—No. 2 Acquisition.		1942—No. 3 Acquisition.		1943—No. 4 Acquisition.		1944—No. 5 Acquisition.	
	Quan- tity.	Growers Ad- vances.	Quan- tity.	Growers Ad- vances.	Quan- tity.	Growers Ad- vances.	Quan- tity.	Growers Ad- vances.	Quan- tity.	Growers Ad- vances.
APPLES.										
N.S.W. (a) ..	'000. bus. 476	£'000. 59	'000. bus. 906	£'000. 203	'000. bus. 576	£'000. 111	'000. bus. (b)	£'000. (b)	'000. bus. (b)	£'000. (b)
Vic. ..	1,980	257	2,872	424	1,428	219	(b)	(b)	(b)	(b)
Q'land. ..	61	8	204	47	98	23	(b)	(b)	(b)	(b)
S. Aust. ..	551	69	1,929	248	270	36	(b)	(b)	(b)	(b)
W. Aust. ..	1,505	197	1,905	239	1,161	156	2,127	327	1,567	239
Tas. ..	4,922	667	5,967	683	6,354	758	5,738	778	8,027	1,108
Total ..	9,495	1,257	13,783	1,844	9,887	1,303	7,865	1,105	9,594	1,347

PEARS.

(Other than Canning.)

	'000. bus. £'000.		'000. bus. £'000.		'000. bus. £'000.		'000. bus. £'000.		'000. bus. £'000.	
	'000. bus.	£'000.	'000. bus.	£'000.	'000. bus.	£'000.	'000. bus.	£'000.	'000. bus.	£'000.
N.S.W. (a) ..	137	24	280	52	158	35	(b)	(b)	(b)	(b)
Vic. ..	308	59	1,087	208	597	117	(b)	(b)	(b)	(b)
Q'land. ..	0.5	..	18	4	9	2	(b)	(b)	(b)	(b)
S. Aust. ..	95	18	193	34	97	17	(b)	(b)	(b)	(b)
W. Aust. ..	75	13	93	15	93	17	141	25	77	14
Tas. ..	310	57	579	112	359	69	387	86	534	104
Total ..	925.5	171	(e) 2,250	425	(f) 1,313	257	528	111	611	118

(a) Includes Australian Capital Territory. (b) Acquisition scheme did not apply. (c) Excludes 52,115 bushels sold privately by growers. (d) Excludes 110,154 bushels sold privately by growers. (e) Excludes 15,335 bushels sold privately by growers. (f) Excludes 6,861 bushels sold privately by growers.

§ 17. Vegetables for Human Consumption.

1. Area and Production of Fresh Vegetables.—The pre-war production of vegetables in Australia which had been sufficient to meet the needs of the population was, generally speaking, supplied by growers whose holdings were adjacent to centres of consumption. These areas were classified for statistical purposes as market gardens and were tabulated as such. Details of the areas planted and production respecting individual kinds of vegetables were not collected.

Following the outbreak of war in the Pacific in December, 1941 and the establishment of Australia as a base for Australian and Allied Services in the South-West Pacific Area it was evident that the production of fresh vegetables under the conditions then existing would be insufficient to meet the additional demand from the Services. Consequently extensive development of vegetable-growing in Australia was undertaken resulting in an expansion from the peace-time need of about 100,000 acres to more than 200,000 acres exclusive of potatoes, onions, navy beans and blue peas, details of whose production are referred to in §§ 9, 10 and 11 of this Chapter.

This development was achieved by continuing supplies of vegetables to the civil population from the market gardens already established, by extending production to areas which previously had not grown these crops and by the mechanization of the industry. Farming operations were thus able to be undertaken in many cases on a scale larger than that normally adopted in Australia. In addition, the letting of

contracts at guaranteed prices proved an attraction and the vegetable-growing industry was able to produce the additional quantities necessary to meet the war-time needs of the services as well as those of the civil population.

Details of the area and production of vegetables for the season 1942-43 and 1943-44 are given in the following table. Owing to the difference in collection already referred to, comparable figures prior to 1942-43 are not available.

FRESH VEGETABLES (a) FOR HUMAN CONSUMPTION : AUSTRALIA.

Vegetable.	1942-43.		1943-44.	
	Area.(b)	Production.	Area.(c)	Production.
	Acres.	Tons.	Acres.	Tons.
Beans, French	13,677	13,747	18,376	15,291
Beetroot	2,996	16,621	4,009	21,781
Cabbages	9,038	110,981	12,030	127,175
Carrots	5,639	34,340	13,493	74,379
Cauliflowers	5,217	63,102	5,737	69,527
Cucumbers	1,499	2,850	3,003	5,679
Lettuces	2,835	10,984	3,461	12,536
Parsnips	1,841	12,193	2,207	13,265
Peas, Green	32,710	25,597	51,581	28,849
Potatoes, Sweet	3,006	9,966	3,343	11,723
Pumpkins	27,324	77,758	29,874	66,234
Tomatoes	16,868	71,803	23,731	106,931
Turnips, Swede	12,108	49,307	11,647	40,442
All Other	7,830	..	16,116	..
Total	142,588	..	198,608	..

(a) Excludes potatoes, onions, blue peas and navy beans.
sown.

(b) Area harvested.

(c) Area

2. Production of Canned Vegetables.—As a corollary to the development mentioned above a considerable expansion occurred in the processing of vegetables. New canning factories were established in many parts of the Commonwealth, and a new industry for the processing of vegetables by the dehydration method was commenced. The number of canneries operating totalled 40 whilst the number of dehydration plants was 33.

The development in the vegetable-canning industry is indicated in the table below :—

PRODUCTION OF CANNED VEGETABLES : AUSTRALIA.

Vegetable.	1938-39.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.
	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.
Asparagus	2,150	2,247	2,474	2,422	2,844	2,752
Beans	2,491	2,987	6,628	16,467	10,508	6,137
Beetroot	(a)	(a)	(a)	(a)	(a)	7,734
Cabbages	(a)	(a)	(a)	(a)	(a)	13,278
Carrots	(a)	(a)	(a)	(a)	(a)	12,789
Cauliflower	198	181	264	406	276	201
Peas	1,861	3,359	4,934	2,579	3,590	9,353
Silver Beet	(a)	(a)	(a)	(a)	(a)	1,794
Tomatoes	1,578	2,573	4,195	5,557	9,019	7,124
Other (c)	(b)1,977	(b)1,581	(b)8,948	(b)21,883	(b)46,331	34,192
Total	10,255	12,928	27,443	49,314	72,568	95,354

(a) Included in "Other Vegetables". (b) Includes particulars of vegetables marked (a).
(c) Includes Parsnips, Potatoes, Turnips, Sweet Corn, etc.

3. **Production of Dehydrated Vegetables.**—The dehydration of vegetables was not undertaken in Australia until after the outbreak of war in the Pacific toward the close of 1941. The demand for vegetables in this form by Australian and Allied Services made this development a necessity and as a result 33 dehydration plants were erected in all States except Queensland in areas where adequate supplies of suitable vegetables were assured. Twelve of these establishments have ceased to operate, the number operating in March, 1946, being as follows:—New South Wales, 5; Victoria, 7; South Australia, 4; Western Australia, 1; and Tasmania, 4.

In the following table details are given of the quantities of fresh vegetables processed and the output in dehydrated form since the industry was established.

DEHYDRATED VEGETABLES: QUANTITY OF FRESH VEGETABLES USED AND PRODUCTION, AUSTRALIA.

Particulars.					1942-43.	1943-44.	1944-45.
Quantity Used—					Tons.	Tons.	Tons.
Beetroot ..	..	..	..	..	(a)	392	1,840
Carrots ..	..	..	..	..	(a)	9,336	18,984
Cabbages ..	..	..	..	..	(a)	10,181	20,213
Onions ..	..	..	..	..	(a)	2,295	4,852
Parsnips ..	..	..	..	..	(a)	1,042	782
Potatoes ..	..	..	..	..	(a)	18,054	48,979
Quantity Produced—					'000 lb.	'000 lb.	'000 lb.
Beetroot ..	..	..	..	..	(b)	70	261
Carrots ..	..	..	..	..	280	1,432	2,831
Cabbages ..	..	..	..	..	(b)	891	1,745
Onions ..	..	..	..	..	275	472	1,027
Parsnips ..	..	..	..	..	(b)	266	188
Potatoes ..	..	..	..	..	2,092	5,657	14,450
Other ..	..	..	..	..	101	..	..
Total	..	..	..	..	2,748	8,788	20,502

(a) Not available.

(b) Included with "Other".

§ 18. Minor Crops.

1. **General.**—There are many other crops which do not occupy so prominent a position as those already enumerated. Some of the more important of these are included under the headings—Tobacco, Hops, Flax, Peanuts, Cotton and Sorghum.

2. **Grass Seed.**—Particulars of the area of grass crops grown for seed cannot be accurately determined as seed is obtained from certain crops such as clover, lucerne, etc., at a second cutting. The production of seed recorded in 1943-44 was clover, 29,923 cwt.; lucerne, 8,807 cwt.; other grass seed, 13,965 cwt., or a total of 52,695 cwt.

3. **Other Grains from Sorghums.**—In addition to the grass seed referred to in paragraph 2 above, a considerable expansion has occurred in the production of grain from sorghums including millet, etc. Particulars of the area and production are given in the table below.

In addition to the sowing of these areas for grain, considerable expansion has occurred in the area sown to sorghums for hay and green fodder. With the exception of a small area in Western Australia, production of grain is confined to the three eastern States.

SORGHUMS : AREA AND PRODUCTION OF GRAIN, AUSTRALIA.

Year.	Japanese Millet.(a)		Panicum Millet and Setaria.(b)		Sorghum.(b)	
	Area.		Area.		Area.	
	Acres.	Tons.	Acres.	Tons.	Acres.	Tons.
1940-41	(c)	(c)	5,883	934	9,852	5,196
1941-42	(c)	(c)	14,010	5,497	25,340	9,696
1942-43	496	149	11,232	3,961	40,630	18,572
1943-44	1,083	460	15,943	8,043	54,868	35,927
1944-45	2,948	964	16,570	4,784	(d)63,102	33,129

(a) Victoria only.
South Wales.

(b) Queensland only.

(c) Not available.

(d) Includes New

4. **Tobacco.**—(i) *General.* Tobacco-growing years ago promised to occupy an important place amongst the agricultural industries of Australia. As early as the season 1888-89, the area of this crop amounted to 6,641 acres, of which 4,833 were in New South Wales, 1,685 in Victoria, and 123 in Queensland. This promise was, however, not fulfilled, and after numerous fluctuations, in the course of which the Victorian area rose in 1895 to over 2,000 acres, and that in Queensland to over 1,000 acres, the total area declined considerably.

(ii) *States, Area and Production.* The expansion of the tobacco-growing industry was hoped for as a war-time measure. Although the acreage planted increased slightly during the first three war years decreases occurred in the next two years, the acreage for 1943-44 being 34 per cent. less than the annual average for the three years ended 1938-39 and the production of dried leaf 10 per cent. less. The area of 6,616 acres and production of 4,633,000 lb. represented a decrease on 1941-42 of 2,204 acres and of more than 2,400,000 lb.

In all the States where its cultivation has been tried, the soil and climate appear to be suitable for the growth of the plant, and the large import of tobacco in its various forms is an index of the market for a satisfactory product.

In the following table particulars of the area and production of tobacco are given by States for each year since 1934-35, and for the decennium ended 1943-44 :—

TOBACCO : AREA AND PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Total.
AREA IN ACRES.								
1934-35 ..	560	4,765	3,117	151	313	55	..	8,961
1935-36 ..	934	5,840	3,973	141	426	85	..	11,394
1936-37 ..	851	5,492	3,812	102	1,041	113	..	11,411
1937-38 ..	610	4,736	3,740	90	1,216	159	..	10,551
1938-39 ..	629	2,559	3,653	39	908	130	1	7,919
1939-40 ..	717	2,018	4,402	2	1,019	105	25	8,288
1940-41 ..	988	1,926	4,304	2	1,313	15	..	8,548
1941-42 ..	953	2,232	4,341	..	1,288	6	..	8,820
1942-43 ..	823	1,850	3,149	..	1,347	..	..	7,169
1943-44 ..	657	2,000	2,348	..	1,611	..	..	6,616
Average 10 seasons ended 1943-44	772	3,342	3,684	53	1,048	66	3	8,968

PRODUCTION OF DRIED LEAF,
'000 lb.

1934-35 ..	230	1,501	1,555	23	289	45	..	3,643
1935-36 ..	667	2,879	2,005	31	352	73	..	6,007
1936-37 ..	606	1,754	2,317	24	666	143	..	5,510
1937-38 ..	409	2,336	2,197	14	789	115	..	5,860
1938-39 ..	308	720	2,094	13	767	54	..	4,046
1939-40 ..	524	1,098	2,596	(a)	712	18	9	4,957
1940-41 ..	962	1,197	2,328	..	984	5	..	5,476
1941-42 ..	836	2,226	2,884	..	1,093	1	..	7,040
1942-43 ..	772	1,017	1,843	..	1,337	..	..	4,969
1943-44 ..	515	1,544	1,779	..	795	..	..	4,633
Average 10 seasons ended 1943-44	592	1,627	2,160	10	779	45	1	5,214

(a) No leaf produced.

(iii) *Australian Tobacco Board.* The Australian Tobacco Board was constituted in May, 1941, for the purpose of regulating the marketing of Australian-grown tobacco leaf, which must be submitted to the Board for appraisalment.

(iv) *Tariff Board Inquiries.* The tobacco industry has been the subject of a number of investigations. The Tariff Board inquired into the industry in 1926, 1931 and 1940 and reports were issued.

(v) *Tobacco Inquiry Committee.* The Tobacco Inquiry Committee, which was appointed by the Commonwealth Government to investigate certain aspects of the industry in North Queensland, presented its report in 1933. Recommendations made included the payment of a sum of £20,000 annually for a period of five years to assist the States to continue economic and scientific investigations. This was adopted and the distribution was spread between the years 1934-1938 as follows:—£5,000 to the Council for Scientific and Industrial Research, £3,750 to each of the States of New South Wales, Victoria and Queensland, and £1,250 each to South Australia, Western Australia and Tasmania.

A further grant of £62,500, which was increased by £11,250 in 1941, was allotted by the Commonwealth Government to be paid periodically between the years 1939 to 1943. The amount of £73,750 was allocated as follows:—Council for Scientific and Industrial Research, £25,000; and £10,000 annually among the States for the years 1939, and 1941 to 1943, and £8,750 for 1940.

The Council for Scientific and Industrial Research is investigating diseases effecting the tobacco plant, including work on disease-resisting varieties, and is making tests of smoking quality. The Council has been successful in discovering effective means of preventing blue mould, which has seriously retarded the development of the industry. The States are carrying out field investigations on disease resistance, selection, yield and quality improvement, and are conducting instructional, demonstrational and field experimental work.

(vi) *Tobacco Factories.* In 1943-44 the quantity of stemmed leaf used in tobacco factories in Australia amounted to 24.2 million lb. of which 5.0 million was of local origin and the balance was imported, chiefly from the United States of America.

(vii) *Imports.* The total net imports of tobacco into Australia during the year 1943-44 were valued at £A.4,475,912, including net imports of unmanufactured tobacco valued at £A.5,277,052.

5. Hops.—Hop-growing in Australia is practically confined to Tasmania and some of the cooler districts of Victoria, the total area for 1943-44 being 1,295 acres, of which 1,114 acres were in Tasmania, 160 acres in Victoria and a small area of 21 acres in Western Australia. The Tasmanian area, though still small, has increased during the present century, the total for 1901-2 being 599 acres. In Victoria the area, which in 1901-2 was 307 acres, dwindled to 71 acres in 1918-19, then rose to 312 acres in 1925-26 and dropped to 173 in 1939-40. The cultivation of hops was much more extensive in Victoria some 60 years ago than at present, the area in 1883-84 being 1,758 acres.

In the following table details of the production, imports and exports of hops and the quantity of hops used in breweries are shown for the last seven years:—

HOPS : PRODUCTION AND DISPOSALS, AUSTRALIA.

Year.	Production.		Imports.	Exports.	Net Available Supplies.	Quantity used in Breweries.
	Quantity.	Gross Value.				
	Cwt.	£	Cwt.	Cwt.	Cwt.	Cwt.
1938-39	21,450	182,550	1,565	2	23,013	20,991
1939-40	17,790	148,171	10,203	3	27,990	22,063
1940-41	28,815	243,796	7,506	18	36,303	23,413
1941-42	27,068	233,266	418	56	27,430	23,897
1942-43	24,810	219,480	82	499	24,393	21,549
1943-44	26,780	238,162	1,021	401	27,400	21,710
1944-45 (a) ..	23,317	230,400	177	60	23,434	22,093

(a) Subject to revision.

The Tariff Board conducted an inquiry into the hop-growing industry and issued a report on 12th June, 1945.

6. Flax.—For many years flax was grown intermittently in parts of Victoria and unsuccessful attempts were made to introduce its cultivation in some of the other States.

During the 1914-19 War there was an acute shortage of flax fibre and expansion of production was encouraged by the Commonwealth Government. Bounties were paid on production during the years 1907 to 1918 and again for each of the five years ended 1935. The amounts distributed as bounty during these periods totalled £2,376 and £2,839 respectively. However, the maximum area, which was sown in 1919-20, was only slightly more than 1,600 acres. The area subsequently declined to less than 200 acres in 1928-29. A further attempt to establish the industry was made in 1935 and as a result the area in Victoria had increased to 1,358 acres by 1938-39. Following the outbreak of the 1939-45 War the area sown increased rapidly, reaching over 54,000 acres in 1941-42 and over 61,000 acres in 1944-45. Victoria is the chief producing State, but South Australia, Western Australia and Tasmania have also contributed to this war-time expansion which was necessary to ensure Australia's supplies of flax and, in accordance with an agreement negotiated between the two Governments, to provide an export to assist in meeting the urgent needs of the United Kingdom. Normally this agreement would expire about the end of the 1946-47 season, but arrangements are under consideration for its continuance on a modified scale.

Details of the area under flax and the production of straw are given in the following table:—

FLAX: AREA AND PRODUCTION.

Year.	Victoria.	S. Australia.	W. Australia.	Tasmania.	Total.
AREA (Acres.)					
1938-39..	1,358	..	..	..	1,358
1939-40..	2,116	..	..	..	2,116
1940-41..	12,086	152	996	6,596	19,830
1941-42..	25,527	8,200	6,206	14,643	54,576
1942-43..	26,173	9,818	8,785	11,964	56,740
1943-44..	31,567	9,511	7,642	6,911	55,631
1944-45..	38,459	10,537	8,278	3,803	61,077
PRODUCTION. (Tons of straw.)					
1938-39..	950	..	..	..	950
1939-40..	2,487	..	..	..	2,487
1940-41..	8,622	73	674	7,535	16,904
1941-42..	31,575	10,600	6,926	16,005	65,106
1942-43..	27,529	8,361	6,159	5,462	47,511
1943-44..	40,937	10,450	6,618	4,456	62,461
1944-45..	17,035	3,315	3,907	4,088	28,345

Although the growing of flax on a large scale was established as a war-time measure, it is proposed to continue the industry at a level sufficient to meet local requirements providing that it can be efficiently maintained in competition with other countries. It has been estimated that about 30,000 acres are required to produce flax for the peace-time needs of Australia.

The industry is under the control of the Flax Production Committee appointed under the Supply and Development (Flax Production) Regulations. The Committee has, amongst other things, organized the growing and harvesting of the crop, and the processing of the flax as well as disposing of the resultant products to spinners and others in Australia and overseas. In 1943-44 in the four producing States there were 31 mills under the control of the Committee. Some of these mills have since been closed.

The flax industry was the subject of two investigations, one in 1933 and the other in 1936 (See Official Year Book No. 32, p. 658).

7. **Peanuts.**—The production of peanuts, or groundnuts, in Australia is mainly confined to Queensland although small quantities are grown in New South Wales and Western Australia. Details of the area and production are given in the table below.

PEANUTS : AREA AND PRODUCTION, AUSTRALIA.

Year.	Area.				Production.			
	N.S.W.	Q'land.	W. Aust.	Total.	N.S.W.	Q'land.	W. Aust.	Total.
	Acres.	Acres.	Acres.	Acres.	Tons.	Tons.	Tons.	Tons.
1938-39..	3	21,220	145	a 22,408	(c)	7,690	27	ad 7,934
1940-41..	6	10,657	34	b 10,747	(c)	5,684	7	e 5,691
1941-42..	12	13,098	20	13,130	6	6,122	10	6,138
1942-43..	4	15,849	25	15,878	4	6,387	10	6,401
1943-44..	..	18,415	25	18,440	..	9,614	1	9,615

(a) Includes 1,040 acres, 217 tons in Northern Territory. (b) Includes 50 acres, production not available, in Northern Territory. (c) Not available. (d) Excludes New South Wales. (e) Excludes New South Wales and Northern Territory.

The gross value of the 1943-44 crop was £351,063.

In addition to the production shown above, considerable quantities are imported annually, chiefly from India, for oil expression purposes. Details of Australia's available supplies in terms of kernels are given for the years 1938-39 and 1940-41 to 1943-44:—

PEANUTS (IN TERMS OF KERNELS) : AVAILABLE SUPPLIES, AUSTRALIA.

Particulars.		1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
		Tons.	Tons.	Tons.	Tons.	Tons.
Production	.. ..	5,290	3,794	4,092	4,268	6,410
Imports..	.. ..	2,270	6,402	7,480	6,567	4,369
Total	.. ..	7,560	10,196	11,572	10,835	10,779

8. **Broom Millet.**—Broom millet figures appear in the statistical returns of four of the States. The total area devoted thereto in 1943-44 was 3,274 acres, of which 2,224 acres were in New South Wales, 890 in Victoria, 143 in Queensland and 17 in Western Australia. The total production from these areas was 13,897 bushels of grain and 14,490 cwt. of fibre.

9. **Nurseries.**—In all the States fairly large areas are occupied as nurseries. The acreages under flowers, fruit-trees, etc., in 1943-44 in the various States were as follows:—New South Wales, 430 acres; Victoria, 618 acres; Queensland, 97 acres; South Australia, 102 acres; Western Australia, 86 acres; and Tasmania, 255 acres.

10. **Cotton.**—(i) *General.* The production of cotton in Australia is restricted to Queensland where cultivation began in 1860, and ten years later the area cropped had increased from 14 acres to over 14,000 acres. The reappearance of American cotton in the European market on the conclusion of the Civil War gave a severe setback to the new industry, and the area declined continuously until 1888, when only 37 acres were planted. Later on the industry was revived, and manufacturing on a small scale was undertaken on two separate occasions at Ipswich, but low prices over a term of years checked development.

(ii) *Bounties, etc.* In 1913 the Queensland Government made an advance of 1½d. per lb. on seed cotton, and ginned it on owner's account, the final return being equal to about 1½d. per lb. The rise in price enabled the Government to offer a guarantee of 5½d. per lb. for seeded cotton of good quality for the three years ended 31st July, 1923, and the

areas picked increased from 166 acres in 1920 to 50,186 acres in 1924. Guarantees were continued until 1926, when the Commonwealth Government granted a bounty varying from $\frac{3}{4}$ d. to $1\frac{1}{4}$ d. per lb. according to grade. In addition, the cotton-manufacturing industry received a graduated bounty on all cotton yarn manufactured in Australia which contained 50 per cent. of home-grown cotton. This bounty, however, ceased to operate after 30th June, 1932. The cotton-growing industry was further assisted by the Bounty Act of 1934, which extended the period to 1940 at varying rates of bounty.

The Raw Cotton Bounty Act 1940 provided an extension of assistance until 31st December, 1946.

(iii) *Expansion of the Cotton-growing Industry.* The increased demand for raw cotton to meet Australia's war and civil needs stimulated production. Normally Australia produces less than one-third of its requirements, the balance being obtained chiefly from the United States of America and India. Efforts have been directed towards increasing production by an extension of area and the introduction of irrigation methods, but the results so far have not met with much success. The expansion of the industries connected with the spinning and weaving of cotton is referred to in Chapter XXV. "Manufacturing Industry".

The area under cultivation and the production in Queensland since the year 1933 are shown hereunder:—

COTTON : AREA AND PRODUCTION IN QUEENSLAND.

Season Ended September—	Area Sown.	Production of Cotton.				Average Yield per Acre Sown.	
		Unginned.		Ginned.	Ginned— Equiva- lent in Bales. ^a	Unginned.	Ginned.
		Quantity.	Gross Value.				
	Acres.	'000 lb.	£	'000 lb.	Bales.	lb.	lb.
1933 ..	68,203	17,718	(b) 282,740	5,546	10,974	260	81
1934 ..	43,397	26,924	(b) 397,263	8,777	17,471	620	202
1935 ..	54,947	20,785	(b) 376,456	7,067	14,515	378	129
1936 ..	62,200	19,199	(b) 330,324	6,654	13,504	309	107
1937 ..	52,692	11,793	(b) 205,025	4,114	8,519	224	78
1938 ..	66,470	13,688	(b) 230,339	4,774	9,654	206	72
1939 ..	41,212	17,528	(b) 301,180	6,183	12,447	424	150
1940 ..	41,262	12,108	204,669	4,128	8,370	295	100
1941 ..	61,365	15,869	304,295	5,631	11,437	259	92
1942 ..	56,433	14,058	320,141	4,925	9,962	249	87
1943 ..	41,389	9,540	212,485	3,346	6,814	230	81
1944 (c) ..	17,424	8,508	186,085	2,946	6,055	488	169
1945 ..	(d) 7,099	(d) 1,820	(e)	651	1,305	(d) 256	(d) 92

(a) Bales of approximately 500 lb. (b) Includes governmental assistance. (c) Includes 7,221 lb. of unginned cotton and the equivalent of ginned cotton, grown in New South Wales.
(d) Subject to revision. (e) Not yet available.

11. *Coffee.*—Queensland is the only State in which coffee has been grown to any extent, and the results have not been satisfactory. The area of this crop reached its highest point in the season 1901-2 with 547 acres. Thereafter the acreage fluctuated, but on the whole with a downward tendency, and in 1943-44 only 9 acres were recorded with a production of 8,031 lb.

12. *Other Crops.*—Miscellaneous small crops grown in Australia include chicory, cut flowers, herbs, ginger, liquorice and vegetable seeds.

§ 19. Bounties, etc.

1. **Bounties.**—The bounties paid by the Commonwealth Government during the year ended 30th June, 1944 amounted to £28,605. This amount refers only to bounties paid under the Bounties Acts and does not include financial assistance given to wheat-growers and other primary producers under other Acts. Particulars of the assistance so rendered by the Commonwealth Government are furnished hereafter. Details of the amounts paid as bounty during the years 1939-40 to 1943-44 are as follows:—

BOUNTIES : AUSTRALIA.

Articles on which Bounty was Paid.	Rate of Bounty Payable.	Date of Expiry of Bounty.	Amount Paid.				
			1939-40.	1940-41.	1941-42.	1942-43.	1943-44.
			£	£	£	£	£
Iron and Steel Products Bounty Act— Wire Netting manufactured from materials produced and manufactured in Australia	12s. per ton ..	23rd Oct., 1939.	4,451	..	..	..	..
Traction Engines ..	According to capacity, £40-£90 per tractor less 10 per cent. from 9th July, 1930, increased to 16 per cent. from 7th November, 1930, and to 40 per cent. from 11th July, 1931. Restored to original rate from 4th December, 1933	23rd Oct., 1939.	6,052	221	..	..	..
Wire Netting Bounty Acts 1939-1944	9s. 7d. per ton ..	23rd Oct., 1944.	83	567	369	421	447
Tractor Bounty Acts 1939	According to capacity, £32-£72	23rd Oct., 1944.	6,400	6,750	1,108	850	5,652
Motor Industry Bounty Radiator Assembly ..	10s. each ..	6th Dec., 1940.	2,396	1,287	..	..	..
Sulphur Bounty Act 1923— Sulphur from Australian Pyrites and other Sulphide Ores or Concentrates	£2 5s. per ton ..	23rd Oct., 1939.	55,036	..	..	..	..
Wine Export Bounty Act 1939-1944	1s. per gallon from 1st March, 1940	28th Feb., 1947.	146,592	56,547	38,610	15,049	22,506
Raw Cotton Bounty Act 1934— Raw cotton produced in Australia and graded as prescribed	5½d. per lb. to 30th November, 1935, 4½d. to 30th November, 1936, and 4½d. per lb. to 30th November, 1940, fluctuating according to variations in Liverpool spot price	30th Nov., 1940.	60,391	14,523	..	..	..
Raw Cotton Bounty Act 1940-1941	To 31st December, 1941, 4½d. per lb. To 31st December, 1942, 4½d. per lb.	31st Dec., 1945.	..	35,390	..	..	..
Superphosphate Bounty Act 1941	25s. per ton ..	" "	..	..	38,439	293,136	..
Cable and Wire Bounty Act 1941— Rubber insulated cable and wire	4d. per lb. of copper wire used	30th June, 1942.	..	..	8,892	3,502	..
Papua and New Guinea Bounties Act— Cocoa Beans ..	1½d. per lb. ..	31st Dec., 1947.	3,595	4,722	4,862	13	..
Bamboos and Rattans (Unmanufactured)	£4 per ton ..	" "	..	18	9	..	..
Manila, Sisal and Other Hemp Fibres	£6 " ..	" "	..	..	..	..	..
Coir Fibre ..	£3 " ..	" "	239	264	..	..	..
Kapok ..	2d. per lb. ..	" "	..	2	17	..	..
Fruit Exported— Oranges, Lemons, Grape Fruit and Mandarins	Varies from 1s. to 2s. per case	31st Dec., 1940.	3,872	1,953	..	..	..
Total ..	.. ..	..	289,107	122,244	872,122	190,413	28,605

(a) Year ended December, 1942.

2. Other Financial Assistance to Primary Producers.—(i) *General.* In addition to the payment of bounties mentioned in the preceding paragraph, financial assistance has been granted by the Commonwealth Government for the relief of wheat-growers, fruit-growers and other primary producers. The amounts shown exclude such items as the expenditure on cattle tick control, banana industry, tobacco investigation and apple and pear research, which indirectly benefits the industries concerned, and exclude loans made to States to alleviate hardship suffered by primary producers in consequence of drought. The distribution as bounty, relief or subsidy has been made in the following manner :—

AMOUNTS PAID BY THE COMMONWEALTH GOVERNMENT AS ASSISTANCE FOR RELIEF OF PRIMARY PRODUCERS.

Amounts paid to—	Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.
		£	£	£	£	£	£	£	£
Wheat-growers as—									
Bounty (a) ..	1931-32	950,546	820,635	64,620	874,630	716,826	2,057	..	3,429,314
Relief ..	1932-33	570,902	442,421	40,744	507,138	436,145	2,342	308	2,000,000
..	1933-34	911,094	603,586	76,455	764,543	639,493	(b) 57,024	805	3,053,000
Bounty (a) ..	1934-35	531,593	285,000	45,717	300,687	296,652	2,543	222	1,462,414
Special Relief ..	..	100,000	192,000	12,000	127,000	137,000	5,250	..	573,250
Relief ..	..	590,000	400,000	42,740	503,545	434,527	(b) 33,906	226	2,004,944
Relief ..	1935-36	565,327	441,948	42,835	432,146	392,850	(b) 40,403	360	1,915,869
Assistance ..	1938-39	558,489	307,564	70,824	398,559	421,296	(b) 51,961	..	1,808,693
..	1939-40	910,839	415,119	109,805	436,667	497,888	114,716	1,033	2,486,067
..	1940-41	477,519	249,328	47,878	313,601	203,015	(b) 49,292	..	1,498,593
Relief (Drought) ..	..	320,000	250,000	..	200,000	200,000	..	..	970,000
Assistance ..	1941-42	521,513	392,335	29,789	359,614	294,332	(b) 54,133	..	1,651,716
Relief (Drought) ..	..	..	..	15,000	..	..	623	..	15,623
Assistance ..	1942-43	447,593	424,584	40,009	470,817	(d) 804,953	(b) 55,587	..	2,213,543
..	1943-44	1,467,345	710,434	159,989	806,042	61,098,812	(b) 47,207	..	4,289,829
..	1944-45	644,034	164,420	231,717	378,621	61,113,386	(b) 50,561	..	2,582,739
Relief ..	..	475,000	725,000	..	330,000	49,000	..	..	1,570,000
Total ..	..	10,042,094	6,821,374	1,030,122	7,303,670	7,787,775	567,605	2,954	33,555,594
Fruit-growers as—									
Relief (c) ..	1933-34	8,225	36,321	478	5,258	10,918	63,800	..	125,000
.. (c) ..	1934-35	12,538	22,299	2,103	13,116	14,713	70,231	..	135,000
Total ..	..	20,763	58,620	2,581	18,374	25,631	134,031	..	260,000
Primary Producers (other than wheat-growers)—									
Manure subsidy ..	1932-33	19,903	88,697	32,588	34,930	50,823	17,711	32	244,684
..	1934-35	23,000	95,000	21,000	46,000	52,000	13,000	..	250,000
..	1935-36	56,211	303,324	40,944	99,610	105,821	28,127	94	534,131
..	1936-37	40,058	129,037	25,144	59,136	58,327	14,610	88	327,000
..	1937-38	30,048	99,746	18,828	48,000	53,028	12,450	66	262,166
..	1938-39	18,290	76,506	19,020	39,400	43,260	14,660	90	206,020
..	1939-40	427	17,100	4,320	783	320	250	..	23,200
..	1941-42	118,939	255,755	21,000	166,219	197,201	20,103	..	779,817
..	1942-43	92,136	174,195	18,923	108,248	134,811	28,595	..	553,910
..	1943-44	163,813	405,690	20,000	255,290	374,122	83,637	..	1,393,152
..	1944-45	303,506	697,955	41,435	459,968	569,003	145,521	..	2,244,388
Total ..	..	866,333	2,243,599	264,402	1,311,584	1,635,716	376,464	370	6,698,468
Dairying industry ..	1942-43	277,079	430,100	365,532	49,529	42,275	21,791	..	1,186,306
..	1943-44	1,832,317	2,614,289	2,145,747	338,267	285,268	130,232	..	7,346,120
..	1944-45	1,495,196	2,716,807	1,878,759	314,666	260,287	146,542	..	6,812,197
Total ..	..	3,604,592	5,761,196	4,390,038	702,402	587,830	298,565	..	15,344,623
Grand Total ..	..	14,533,782	14,884,789	5,687,143	9,336,030	10,036,952	1,376,665	3,324	55,858,685

(a) Rate of Bounty 4½d. per bushel in 1931-32 and 3d. per bushel in 1934-35. (b) Includes special grant to Tasmania. (c) Growers of apples, pears and mandarins. (d) Includes Wheat Acreage Restriction Grant. (e) Includes payment of £1,659,325 recovered in London.

(ii) *Wheat-growers.* The moneys granted for the assistance of wheat-growers in 1932-33 and 1933-34 were paid through the Governments of the States on an acreage basis. In 1934-35, in accordance with the recommendations of the Royal Commission on the wheat industry, assistance took the form of a bounty of 3d. per bushel, supplemented by a further relief payment of 3s. per acre. Further special relief was given to those farmers who were adversely affected by the weather conditions of the 1934-35 season. Altogether, the amount paid during 1934-35 for the benefit of wheat-growers exceeded £4 million. For the year 1935-36 the amount paid by the Commonwealth Government as relief was £1,915,869. No financial assistance was made to wheat-growers by the Commonwealth Government during the years 1936-37 and 1937-38. In 1938-39, however, a sum of £1,808,693, collected through the medium of a flour tax, was allocated for distribution as relief to wheat-growers. From the same source a sum of £1,651,716 was allocated to the States for the same purpose during 1941-42, £1,708,543 in 1942-43, £1,940,481 in 1943-44 and £1,995,775 in 1944-45.

In addition to the above amounts paid from flour tax, compensation was paid to wheat-growers in Western Australia where acreage restrictions were applied during 1942-43, 1943-44 and 1944-45. The amounts so paid were £535,000, £599,348 and £586,964 respectively.

(iii) *Manure Subsidy.* Assistance has been given to primary producers other than wheat-growers in the form of a manure subsidy; the rate was 15s. for each ton of artificial manure used in the production of primary produce, but in 1936-37 this was reduced to 10s. per ton. The payment of this subsidy ceased on 30th June, 1939, but was resumed one year later.

Because of the substantial increases in the price of superphosphate and their effect on the efficiency of the farming industry, the Commonwealth Government introduced a bounty on superphosphate produced and sold in Australia after 1st July, 1941. The rate of bounty was fixed at 25s. per ton, payable to manufacturers, who were required to adjust their prices so that consumers received the full benefit of the subsidy. Details of the amounts paid are given in the table above.

(iv) *Dairy Industry.* The war-time demand for butter, cheese and processed milk products was such as to necessitate production being increased to the limit of existing resources. With this object in view the Commonwealth has subsidized production and so encouraged dairy farmers to maintain output at the highest level possible. The amounts paid since the introduction of the subsidy are shown above. These do not include the subsidies paid on the production of whole milk which is consumed directly and which amounted to £319,000 in 1943-44 and £1,786,000 in 1944-45.

(v) *Farmers' Debt Adjustment.* In addition to the assistance outlined above the Loan (Farmers' Debt Adjustment) Act 1935 made provision for grants, totalling £12 million, to be made available to the States for the adjustment of farmers' debts. Of this amount £10 million was allocated as follows:—New South Wales, £3,450,000; Victoria, £2,500,000; Queensland, £1,150,000; South Australia, £1,300,000; Western Australia, £1,300,000; and Tasmania, £300,000. The remaining £2 million was allocated in the same proportion, and was subject to review at a later date.

§ 20. Fertilizers.

1. *General.*—In the early days of settlement in Australia scientific cultivation was little understood. It was common, as in other new countries, for the land to be cropped continuously to a degree of exhaustion. This practice is very much less in evidence now than in the early days of Australian agricultural development. Under the guidance of the State Departments of Agriculture, scientific farming is now much more widely practised. The importance of fallowing, crop rotation, and the application of suitable fertilizers in adequate quantities is now appreciated by farmers. The introduction of the modern seed-drill acting also as a fertilizer-distributor has greatly facilitated the use of artificial manures and much land formerly regarded as useless for cultivation has now been made productive.

2. **Fertilizers Acts.**—In order to protect the users of artificial fertilizers, legislation has been passed in each of the States regulating the sale and prohibiting the adulteration of fertilizers. A list of these Acts and their main features is given in Official Year Book No. 12, p. 378.

3. **Imports.**—The Australian output of prepared fertilizers is produced chiefly from imported rock phosphates and is sufficient for local requirements. During 1943-44 the quantity of rock phosphate imported represented 88 per cent. of the total imports of fertilizers.

The chief source of Australia's normal supplies of rock phosphate was Nauru and the Gilbert Islands group. The war in the Pacific interrupted supplies from these sources and the bulk of the imports since 1941-42 came from Algeria, Egypt and the Makatea Islands. Sodium nitrate is obtained chiefly from Chile.

The imports of manures during 1938-39 and the four years ended 1943-44 are given in the following table:—

FERTILIZERS : IMPORTS INTO AUSTRALIA.

Australian Currency Values.

Fertilizer.		1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Ammonium sulphate	cwt.	710,065	274,808	2,771	1,369	27
" "	£	336,872	167,574	4,619	2,610	217
Potash salts	cwt.	223,202	121,531	62,887	45,889	66,590
" "	£	102,794	88,464	44,936	53,734	67,164
Rock phosphate	cwt.	16,008,437	7,501,462	6,219,408	4,503,569	6,042,101
" "	£	1,038,399	386,500	573,683	388,206	605,254
Sodium nitrate	cwt.	203,666	1,297,089	86,539	64,972	673,028
" "	£	103,074	221,450	52,308	36,919	398,538
Other	cwt.	125,551	101,194	382	1,405	68,452
" "	£	12,237	7,581	1,221	2,485	42,785
Total	cwt.	17,270,921	9,296,084	6,371,987	4,617,204	6,850,198
	£	1,593,376	871,569	676,767	483,954	1,113,958

4. **Exports.**—The following table shows the exports of fertilizers (practically all of which are manufactured locally) during the same periods:—

FERTILIZERS : EXPORTS FROM AUSTRALIA.

Fertilizer.		1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Ammonium sulphate	cwt.	2,097	1,266	640	66	423
" "	£	940	892	460	41	397
Bone-dust	cwt.	5,238	3,612	119	54	4,601
" "	£	2,931	1,633	84	37	5,242
Rock phosphate	cwt.	61	55	..	..	375
" "	£	143	79	..	..	804
Sodium nitrate	cwt.	22	72	12	640	100
" "	£	42	99	36	793	141
Superphosphate	cwt.	37,062	6,191	1,041	426	975
" "	£	6,182	1,505	344	143	565
Other	cwt.	53,197	16,376	13,893	14,973	5,407
" "	£	27,323	9,420	16,013	21,020	8,324
Total	cwt.	97,677	27,572	15,705	16,159	11,881
	£	37,561	13,628	16,937	22,034	15,473

5. **Quantities Locally Used.**—Information regarding the area fertilized with artificial fertilizers and the quantity of artificial fertilizers (superphosphate, bonedust, nitrates, etc.) used in each State during the year 1943-44 is given in the following table. Details of the area manured with natural manure (stableyard, etc.) have been omitted; in 1940 the quantity used amounted to 678,598 loads :—

AREA FERTILIZED AND QUANTITY OF FERTILIZERS USED, 1943-44.

State or Territory.	Area Fertilized.			Fertilizers Used.		
	Crops.	Pasture Lands.	Total.	Crops.	Pasture Lands.	Total.
	Acres.	Acres.	Acres.	Tons.	Tons.	Tons.
New South Wales	2,013,262	347,229	2,360,491	69,793	12,407	82,200
Victoria	2,060,274	2,034,698	4,094,972	79,102	84,588	163,690
Queensland	198,464	1,110	199,574	33,599	78	33,677
South Australia	1,926,431	704,950	2,631,381	61,867	24,589	86,456
Western Australia	2,545,471	1,204,701	3,750,172	78,521	36,051	114,572
Tasmania	238,178	124,977	363,155	21,407	3,899	25,306
Australian Capital Territory ..	4,321	2,297	6,618	205	85	290
Total	8,986,401	4,419,962	13,406,363	344,494	161,697	506,191

Particulars of the quantity of artificial fertilizers used in each State and Territory during the ten years ended 1943-44 are included in the next table. These details include the quantity used in the top-dressing of pasture lands.

The serious diminution in the output of superphosphate during the war caused by the interruption of imports of rock phosphate necessitated the introduction of a system of rationing of supplies which adversely affected the yields from those crops which are dependent upon the use of superphosphate and other fertilizers.

QUANTITY OF ARTIFICIAL FERTILIZERS USED.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1934-35 ..	101,885	211,657	44,279	157,189	196,741	25,824	..	135	737,710
1935-36 ..	123,472	251,897	40,393	174,593	202,325	27,104	2	166	819,952
1936-37 ..	151,088	306,846	(a) 40,393	208,053	224,473	31,364	4	304	962,525
1937-38 ..	178,369	364,281	58,566	227,547	249,640	33,131	..	357	1,111,891
1938-39 ..	186,569	395,163	61,300	235,443	280,384	33,933	..	432	1,193,224
1939-40 ..	156,071	340,633	61,668	223,694	270,478	36,996	..	510	1,090,050
1940-41 ..	157,425	322,214	61,257	206,303	255,230	37,035	..	593	1,040,057
1941-42 ..	122,128	312,663	(b) 61,257	196,765	234,446	28,706	..	489	956,454
1942-43 ..	95,060	184,795	24,749	135,116	162,776	24,618	..	379	627,493
1943-44 ..	82,200	163,690	33,677	86,456	114,572	25,306	..	290	506,191

(a) 1935-36 figures.

(b) 1940-41 figures.

As mentioned in § 19 the Commonwealth Government has encouraged the use of artificial fertilizers by subsidizing primary producers, other than wheat-growers, at the rate of 15s. per ton up to 1936-37 when the subsidy was reduced to 10s. per ton. The payment of this subsidy ceased on 30th June 1939, but was re-introduced as from 1st July, 1941 at the rate of 25s. per ton. For the purpose of stabilizing the price of superphosphate the Primary Producers Relief (Superphosphate) Act 1943 was passed.

6. **Local Production.**—Complete information regarding local production of fertilizers is not available. The number of firms engaged in the manufacture of chemical fertilizers in Australia for the year 1943-44 was 36, made up as follows :—New South Wales, 6 ;

Victoria, 7; Queensland, 6; South Australia, 6; Western Australia, 5; and Tasmania, 6. The production of superphosphate in Australia during 1943-44 amounted to 543,690 tons, the largest producing States being Victoria, Western Australia and South Australia.

§ 21. Ensilage.

1. **Government Assistance in Production.**—The various State Governments devote a considerable amount of attention to the education of the farming community in regard to the value of ensilage. Monetary aid is afforded in the erection of silos, and expert advice is supplied in connexion with the design of the silos and the cutting and packing of the ensilage.

2. **Quantity Made.**—Information regarding the number of holdings on which ensilage was made and the quantity made during the seasons 1939-40 to 1943-44 is given in the following table:—

ENSILAGE MADE.

State.	1939-40.		1940-41.		1941-42.		1942-43.		1943-44.	
	Holdings.	Ensilage Made.	Holdings.	Ensilage Made.	Holdings.	Ensilage Made.	Holdings.	Ensilage Made.	Holdings.	Ensilage Made.
	(a) No.	Tons.	(a) No.	Tons.	(a) No.	Tons.	No.	Tons.	No.	Tons.
New South Wales ..	1,743	173,220	1,546	138,407	820	64,145	(b)	71,801	(b)	58,143
Victoria ..	1,292	78,193	648	30,520	(b)	34,109	(b)	32,099	(b)	27,108
Queensland ..	307	18,238	522	26,084	350	27,370	(b)	20,825	(b)	13,021
South Australia ..	177	15,546	132	7,275	110	7,428	(b)	9,847	(b)	5,315
Western Australia ..	322	17,196	292	14,510	257	14,694	(b)	15,016	(b)	9,828
Tasmania ..	185	1,102	42	313	86	417	(b)	967	(b)	866
Australian Capital Territory ..	..	..	..	..	1	80	(b)	473	(b)	496
Australia ..	4,026	303,495	3,182	217,109	(b)	148,243	(b)	151,031	(b)	114,777

(a) Number of holdings on which ensilage was made.

(b) Not available.

The drought of 1902-3 drew increased attention to the value of stocks of ensilage and during the four seasons ended 1909-10 there was an increase both in the number of holdings on which ensilage was made and in the quantity produced. The accumulated stocks proved of great value during the 1914 drought, though far less than would have been the case if more attention had been paid to production during the previous years, when there was a surplus of green fodder. The quantities made since that date have fluctuated considerably, but the output increased up to 1939-40 in which year the production of 303,495 tons was the highest yet recorded. During subsequent seasons output has declined noticeably. The production in 1943-44 was 114,777 tons and was 188,718 tons less than the 1939-40 record production.

3. **Stocks Held on Farms.**—Details of farm stocks of ensilage, which were collected for the first time during 1942-43, are shown in the following table:—

ENSILAGE : FARM STOCKS.

31st March—		N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	A.C.T.	Total.
		Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1943	..	127,434	32,097	23,264	7,723	11,003	1,646	415	203,642
1944	..	100,859	24,319	18,676	4,944	6,634	882	890	157,204
1945	..	54,268	15,226	14,688	2,151	5,591	899	155	92,978

§ 22. Agricultural Colleges and Experimental Farms.

In most of the States agricultural colleges and experimental farms have been established with a view to the promotion of more scientific methods in agriculture, stock-breeding and dairying. In the colleges, and on some of the farms, provision is made for the accommodation of pupils to whom both practical and theoretical instruction is given by experts in various branches of agriculture. Analyses of soils and fertilizers are made, manures are tested, and elementary veterinary science, etc., are taught, while general experimental work is carried on with cereal and other crops, not merely for the purpose of showing that it is practicable to produce certain crops in a given place, but to show also how it is possible to make farming pay in the locality. Opportunities are afforded for practice in general agricultural work, and instruction is given in the conservation of fodder; in cheese and butter making; in the management, breeding and preparation for the market of live stock; in the eradication of pests and weeds; and in carpentering, blacksmithing and other trades.

Expert lecturers visit the various agricultural and dairying centres, and there is a wide distribution of periodical agricultural gazettes and bulletins.

§ 23. Employment in Agriculture.

The following information relating to the number of persons employed was furnished by landholders of one acre and more. The particulars furnished refer to the owner, occupier or manager, and those members of his family and other employees who are permanently engaged throughout the year in the work of the farm. Casual labour, such as harvesters and fruit-pickers, is excluded. In the collection of statistics of this nature difficulty is experienced in correctly determining whether the duties of female employees are more domestic than rural, and on that account it is considered advisable to exclude females from the table. Details for 1942-43 and 1943-44 are not available.

MALES EMPLOYED IN AGRICULTURE.

Year.	N.S.W.	Victoria.	Q'land.(a)	S. Aust.	W. Aust.	Tasmania.	Total.
1935-36 ..	42,204	35,926	29,700	30,096	22,585	12,731	173,242
1936-37 ..	43,648	35,575	31,600	30,273	22,317	12,138	175,551
1937-38 ..	43,279	35,592	(b) 34,000	30,365	22,527	11,929	177,692
1938-39 ..	44,627	35,548	31,600	28,981	19,653	11,676	172,085
1939-40 ..	43,269	35,570	33,800	28,502	18,703	11,507	171,351
1940-41 ..	41,105	34,000	32,000	26,487	17,742	11,701	163,035
1941-42 ..	35,113	(c) 33,000	31,000	(c) 25,000	15,213	11,318	(c) 150,644

(a) Estimated from returns furnished by Queensland State Government Insurance Office.

(b) As recorded by State Statistician.

(c) Estimated.

Although the area of crops has expanded considerably during the past two decades there has been a decrease in the number employed in agriculture owing to the increasing use of machinery both in the cultivation of the soil and in the harvesting of the crops. For a number of years prior to the economic depression the value of machinery employed in agricultural pursuits steadily increased until it reached nearly £39 million in 1928-29. After 1929-30 value of machinery employed declined each year to £30 million in 1934-35 but thereafter rose again to £41 million in 1940-41. Particulars for later years are not available.

§ 24. Number and Area of Rural Holdings.

1. **General.**—The statistical data included in the Chapters relating to Agriculture, Pastoral and Dairying are obtained at an annual census taken in each State under the direction of the State Statisticians. This census is taken as early as practicable after the conclusion of the main harvest and covers every holding within the boundaries of each State.

A holding in Australia has been defined by the States on a more or less uniform basis and discrepancies which exist are not of sufficient importance to vitiate any comparisons. For the purpose of these statistics, a holding may be defined as land of one acre or more in extent used in the production of agricultural produce, the raising of live stock or the products of live stock.

With the exception of Queensland, particulars of the number of holdings included in these censuses are available for all States over a series of years. It was not until 1938-39, however, that a complete tabulation became available for Queensland.

2. **Number and Area.**—The following table shows the number and area of the holdings by each State for the year 1943-44 and for previous years for which information is available.

RURAL HOLDINGS : NUMBER AND AREA.

Year.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australian Capital Territory.	Total
NUMBER OF RURAL HOLDINGS.								
1933-34 ..	74,981	75,386	(a)	30,986	22,639	11,731	(a)	(a)
1934-35 ..	75,800	74,473	(a)	31,123	22,874	11,754	186	(a)
1935-36 ..	75,631	73,772	(a)	31,262	22,652	11,857	202	(a)
1936-37 ..	76,239	72,845	(a)	31,321	21,763	11,735	202	(a)
1937-38 ..	75,923	72,792	(a)	31,277	21,682	11,680	202	(a)
1938-39 ..	75,365	72,452	41,503	31,280	21,052	11,680	204	253,536
1939-40 ..	74,909	72,557	42,076	31,244	20,807	11,575	204	253,372
1940-41 ..	74,495	72,382	41,949	30,961	20,347	11,583	203	251,920
1941-42 ..	73,973	72,027	42,500	30,565	20,395	11,500	208	251,168
1942-43 ..	73,579	71,489	42,748	27,934	18,351	11,532	209	245,842
1943-44 ..	73,074	70,961	42,457	27,826	18,345	11,438	202	244,303

TOTAL AREA OF RURAL HOLDINGS.

	'000. acres.	'000. acres.	'000. acres.	'000. acres.	'000. acres.	'000. acres.	'000. acres.	'000. acres.
1933-34 ..	171,641	38,778	(a)	134,847	217,979	6,675	373	(a)
1934-35 ..	171,631	38,861	(a)	137,918	214,455	6,813	369	(a)
1935-36 ..	172,457	39,129	(a)	138,330	218,079	6,931	383	(a)
1936-37 ..	173,880	39,826	(a)	136,978	215,210	6,851	385	(a)
1937-38 ..	174,137	40,388	(a)	142,836	215,911	6,755	382	(a)
1938-39 ..	174,660	40,791	317,782	144,682	211,720	6,778	371	896,784
1939-40 ..	174,315	40,653	338,216	145,979	213,503	6,779	394	919,839
1940-41 ..	173,869	41,334	336,333	144,207	210,107	6,667	394	912,911
1941-42 ..	173,554	41,292	350,000 ^b	145,634	212,198	6,791	397	929,866
1942-43 ..	171,054	41,035	348,866	145,443	208,886	6,525	386	922,195
1943-44 ..	171,878	41,275	348,830	144,526	204,030	6,393	363	917,295

(a) Not available.

(b) Estimated.

3. **Analysis of Holdings.**—(i) *General.* It is not possible to classify these holdings according to the purpose for which they are used. This arises from a number of factors, the chief of which is mixed farming. The general trend in Australia is for farmers to diversify their activities and consequently it is very difficult to determine whether the purpose of many holdings is mainly agricultural, pastoral or dairying, or any of these in combination.

(ii) *New South Wales.* Such an analysis is made in New South Wales but, as pointed out by the Statistician, it should be regarded as an approximation. It is compiled from the description of purpose given by the occupier of the holding at the time of the Census. This tabulation reveals that there were 71,743 holdings so classified in New South Wales during 1940-41. Of this number 9,938 described their main purpose as Agricultural only, 20,897 as Pastoral only, 14,098 Dairying only, 2,558 as Poultry, Pig or Bee Farming, while the main purpose of the remaining 24,252 holdings was stated to be a combination of two or more of these activities. Holdings used mainly for residential or other purposes but which were used partly for the production of rural products have been omitted. These numbered 2,752 during 1940-41.

CHAPTER XXI.

FARMYARD, DAIRY AND BEE PRODUCTS.

§ 1. Introductory.

1. **General.**—The introduction of cattle into Australia and the early history of the dairying industry are referred to in some detail in earlier issues of this publication. It may here be noted that the original stock has been crossed with specially imported stud cattle, while further judicious crossings of strains have resulted in an increased and improved milk supply. In Australia dairy cattle thrive in the open throughout the year, local climatic conditions demanding no protection other than tree plantations for shelter, and in certain districts rugging in the coldest weather. Indigenous and imported grasses furnish food during the greater part of the year, and winter fodder, when necessary, is given to the cattle in the fields. With the wider application of scientific methods in the treatment of animals and pasturages and in the processes of manufacture, coupled with herd testing and effective State supervision, the dairying industry has shown rapid expansion. It has been demonstrated that Australian production and marketing methods do not adversely affect the vitamin content of the butter and that the loss during cold storage even for as long as two years is insignificant.

2. **Official Supervision of Industry.**—Dairy experts of the various State Agricultural Departments give instruction in approved methods of production, and inspect animals, buildings and marketable produce. A high standard of cleanliness, both of *personnel* and *materiel*, prevails.

The export trade is regulated by the terms of the Commonwealth Commerce (Trade Descriptions) Act 1905-1933, and regulations thereunder. It will be sufficient to state here that the true trade description, etc., must be marked on all produce intended for export, while official inspection ensures the maintenance of purity and quality. Upon request of the exporter the goods are given a certificate by the inspector.

3. **Stabilization Schemes.**—(i) *Voluntary Plan.* During the period from January, 1926 to April, 1934, a voluntary scheme known as the "Paterson Plan" was in operation and had the effect of stabilizing the price of butter in Australia. The scheme provided for the payment of a levy on all butter produced in Australia sufficient to pay a bounty on export which ranged from 3d. to 4½d. per lb. The local price was raised by the amount of the bounty per unit while the return to the producer on all butter produced was increased by approximately the difference between the rate of bounty paid and the rate of levy charged. The scheme, which continued until 25th April, 1934, did not receive the full support of all butter manufacturers.

(ii) *Compulsory Plan.* On 1st May, 1934 the "Paterson Plan" was superseded by a compulsory price equalization plan. The object of this scheme was to maintain local prices for butter and cheese independently of prices realized for exports. The Dairy Produce Act was passed by the Commonwealth Parliament towards the end of 1933, and at the same time complementary legislation was passed by the Parliaments of New South Wales, Victoria, Queensland and Tasmania. As a result of a referendum

among producers held in 1936, Tasmania withdrew from the plan and the State Act expired. In the Commonwealth Act power was given to regulate interstate trade while the State Acts were designed to regulate trade within the respective States. The authority set up by each State Act fixed the proportion of the State's production to be sold within the State, and the Commonwealth Act protected this allocation by regulating the movement of butter and cheese from one State to another and so ensured the removal from the Australian market of the surplus production.

The compulsory plan was invalidated by the decision in 1936 of the Privy Council which declared in the *James (Dried Fruits) Case* that the Commonwealth had no power under the Constitution to regulate trade between the States.

(iii) *Equalization Scheme*. Since the Privy Council decision, the butter price stabilization scheme has continued to operate by voluntary action based on the agreements between the manufacturers and the Commonwealth Dairy Produce Equalization Committee Limited. The Committee, which comprises members of the Dairy Products Boards of the four eastern States and other persons representing the industry, enters into agreements with manufacturers to secure to them equal rates from sales of dairy produce, and for this purpose may fix basic prices at which dairy produce sold in Australia or abroad is to be taken into account. The effect is that local and export trade are distributed in equitable proportions among the manufacturers by means of quotas. The Committee fixes basic prices and equalizes returns to factories through an Equalization Fund. The quotas are the same in New South Wales, Victoria, Queensland and Tasmania, all the States concerned in the scheme.

The Commonwealth Prices Commissioner has fixed the home consumption prices of butter and cheese.

4. *Mixed Farming*.—Dairying is not, as formerly, wholly confined to agriculturists, since many graziers in a large way of business also give it their attention. In non-coastal regions it is generally carried on in conjunction with agriculture and sheep-raising, sufficient fodder being grown to carry the cattle through the winter months. Local wants are thus met, and in many places remote from the metropolis well-equipped factories have been established. The extent to which dairy cows and pigs were run in conjunction with the growing of wheat in 1935-36 is referred to on page 375 of *Official Year Book No. 33*.

5. *Factory System*.—Cream separation and butter-making are often carried on together under the co-operative system. The creation of large central butter factories has resulted in a considerable reduction in the cost of manufacture, since improved appliances such as refrigerators, etc., may be profitably worked at the larger establishments. The product is also of a more uniform quality, and few farmers prefer to convert the cream rather than send it to the factory. Formerly the average quantity of milk used per pound of hand-made butter was about 3 gallons, but separator butter requires less than $2\frac{1}{2}$ gallons.

6. *Butter and Cheese Factories*.—The factories in Australia for the manufacture of butter, cheese and condensed milk numbered 472 in 1943-44. They were distributed among the States as follows:—New South Wales, 117; Victoria, 152; Queensland, 99; South Australia, 47; Western Australia, 17; and Tasmania, 40. Fuller details regarding numbers of factories, output, etc., are given in Chapter XXV. "Manufacturing Industry".

7. *Employment*.—The numbers of persons employed in primary industry are ascertained at the annual census of rural production. The particulars collected are in respect of those persons who were permanently engaged in the actual work of the farm and include owners, lessees, tenants or sharefarmers, relatives over 14 years of age not receiving wages, and other permanent employees, including managers and relatives, working for wages or salary.

For the years prior to 1940-41, it was possible to classify each holding according to the chief purpose for which it was used and thus obtain a distribution of employment in the three main classes viz., Agriculture, Pastoral and Dairying. As this information has been omitted from the schedules since that year, it has not been possible to continue the details given in the following table.

EMPLOYMENT IN DAIRYING INDUSTRY.

Year and Sex.		N.S.W.	Victoria.	Q'land. (a)	S. Aust.	W. Aust.	Tas.	Total.
		No.	No.	No.	No.	No.	No.	No.
1935-36	Males ..	38,150	42,072	27,000	4,500	5,465	3,539	120,726
	Females ..	6,481	7,790	7,000	2,756	1,249	2,462	27,738
1936-37	Males ..	37,450	41,922	28,600	4,578	5,261	3,332	121,143
	Females ..	5,444	7,666	7,000	2,331	1,143	2,234	25,818
1937-38	Males ..	35,940	41,878	(b) 29,000	4,540	5,495	3,034	120,487
	Females ..	6,027	7,406	(b) 7,000	2,779	1,129	4,146	26,487
1938-39	Males ..	35,860	41,829	27,000	4,436	6,365	3,917	119,407
	Females ..	6,505	7,222	7,000	2,812	1,661	2,200	27,400
1939-40	Males ..	35,915	41,854	28,800	4,757	6,362	3,670	121,358
	Females ..	7,130	7,314	7,000	2,418	1,678	2,064	27,604

(a) Estimated from returns of Queensland State Government Insurance Office. (b) As recorded by Government Statistician.

The following table gives some indication of the activity in the dairying industry since 1918-19:—

DAIRYING INDUSTRY : AUSTRALIA.

Year.	Number of Dairy Cows.		Production of Butter.	Production of Cheese.	Milking Machines (No. of Stands).	Number of Males engaged.
	In milk.	Dry.				
			Tons.	Tons.		
1918-19 ..	1,319,588	582,448	81,162	10,621	(a)	68,100
1928-29 ..	1,744,728	600,342	129,817	13,490	1(a)	82,300
1938-39 ..	2,600,707	608,812	203,500	29,304	(a)	119,400
1942-43 ..	2,370,982	836,774	171,237	36,134	89,796	(a)
1943-44 ..	2,292,769	900,063	156,282	35,825	100,878	(a)

(a) Not available.

§ 2. Dairy Cattle and Dairy Products.

1. Dairy Herds.—Due to the lack of uniformity in the schedules used by the several States in the collection of live-stock statistics, it is not possible to measure with precision the growth of the dairy herds of Australia prior to 1943. However, statistics of dairy cows, which provide a reliable measurement of this development, show that in 1918-19 there were 1,900,000 dairy cows in milk and dry, compared with 2,345,000 in 1928-29 and 3,200,000 in 1938-39. This latter figure was sustained until March, 1944, but in 1945 a slight decline occurred. In New South Wales, Victoria, South Australia and Tasmania the proportion of dairy cattle to all cattle is high. In Queensland, the Northern Territory and Western Australia there is a greatly preponderating number of other cattle, the main object in these areas being the production of beef. Dairying, however, has developed greatly in Southern Queensland since 1914-15, and the largest contribution to the Australian increase previously mentioned has been made by this State. The numbers of dairy cows for 1943 to 1945 shown in the following table refer to those recorded by farmers as being in milk and dry as at 31st March. The figures shown for the earlier years cover the same categories, but the period differs in some States. To this extent the figures lack comparability which is indicated in footnotes (b) and (c).

NUMBER OF CATTLE AND DAIRY COWS (IN MILK AND DRY).^(a)

State.	Beginning of Year.		31st March—		
	1939. ^(b)	1942. ^(c)	1943.	1944.	1945.
New South Wales	{ All Cattle .. 2,811,884 Dairy Cows .. 985,251	{ 2,878,450 944,912	{ 3,030,546 926,599	{ 3,143,378 919,135	{ 3,144,701 903,157
Victoria	{ All Cattle .. 1,697,295 Dairy Cows .. 859,811	{ 1,986,544 900,408	{ 2,022,892 877,164	{ 2,013,033 874,796	{ 1,903,110 859,200
Queensland	{ All Cattle .. 6,097,089 Dairy Cows .. 997,123	{ 6,303,467 1,020,000	{ 6,466,316 1,035,260	{ 6,524,553 1,022,859	{ 6,623,112 1,001,378
South Australia	{ All Cattle .. 318,897 Dairy Cows .. 152,699	{ 399,143 162,404	{ 424,253 157,297	{ 414,997 161,676	{ 391,323 161,953
Western Australia	{ All Cattle .. 767,680 Dairy Cows .. 119,814	{ 839,731 129,664	{ 831,231 129,763	{ 870,939 138,100	{ 852,563 136,499
Tasmania	{ All Cattle .. 262,407 Dairy Cows .. 93,816	{ 253,106 89,345	{ 244,681 80,559	{ 230,127 75,014	{ 224,668 75,435
Northern Territory	{ All Cattle .. 899,472 Dairy Cows .. (d)	{ 892,881 (d)	{ 978,434 (d)	{ 978,569 (d)	{ 984,370 (d)
Australian Capital Territory	{ All Cattle .. 7,057 Dairy Cows .. 1,005	{ 7,432 1,122	{ 6,967 1,114	{ 8,083 1,252	{ 9,320 1,264
Australia	{ All Cattle .. 12,861,781 Dairy Cows .. 3,209,519	{ 13,560,754 3,246,855	{ 14,005,320 3,207,756	{ 14,183,679 3,192,832	{ 14,133,167 3,138,886

(a) Includes cows (milking and dry) in New South Wales not in registered dairies. (b) As at 31st March for New South Wales; 1st March for Victoria; 1st January for Queensland, South Australia, Western Australia and Tasmania. (c) As shown in footnote (b) except as follows:—30th June, Queensland; and 31st March, Tasmania. (d) Not available.

In the next table the dairy cattle in each State are shown in various categories as at 31st March, 1943, 1944 and 1945. Similar information in this detail is not available for earlier dates as the schedules then used in the collection of these statistics were not completely uniform.

NUMBER OF DAIRY CATTLE.

State.	31st March.	Dairy Cows.		Dairy Heifers 1 year and over.	Dairy Calves under 1 year.	Dairy Bulls.	Total Dairy Cattle.
		In Milk.	Dry.				
New South Wales	1943	(a) 721,417	205,182	210,468	190,585	26,720	1,354,372
	1944	(a) 691,867	227,268	206,138	185,297	26,116	1,336,686
	1945	(a) 706,272	196,885	212,834	189,777	25,767	1,331,535
Victoria	1943	642,110	235,054	247,374	281,512	39,480	1,445,530
	1944	611,599	263,197	275,005	218,970	37,257	1,406,028
	1945	591,437	267,763	267,265	202,258	35,479	1,364,202
Queensland	1943	764,629	270,631	273,520	232,276	32,569	1,573,625
	1944	749,162	273,697	267,539	225,134	30,522	1,546,054
	1945	742,387	258,991	266,451	210,960	30,453	1,509,242
South Australia	1943	109,154	48,143	43,288	44,822	8,189	253,596
	1944	111,022	50,654	44,043	39,991	7,393	253,103
	1945	108,428	53,525	41,907	34,099	7,149	245,108
Western Australia	1943	68,471	61,292	39,728	50,787	6,410	226,688
	1944	67,770	70,330	41,804	54,831	6,634	241,369
	1945	66,219	70,280	42,753	49,047	6,235	234,534
Tasmania	1943	64,414	16,145	22,883	35,016	4,488	142,946
	1944	60,485	14,529	20,833	29,221	3,707	128,775
	1945	61,617	13,818	20,892	28,097	3,642	128,066
Australian Capital Territory	1943	787	327	204	203	18	1,539
	1944	864	388	467	318	31	2,068
	1945	887	377	637	484	27	2,412
Australia ^(b)	* 1943	2,370,982	836,774	837,465	835,201	117,874	4,998,296
	1944	2,292,769	900,063	855,829	753,762	111,660	4,914,083
	1945	2,277,247	861,639	852,739	714,722	108,752	4,815,099

(a) Including other cows in milk not in registered dairies.

(b) Excludes Northern Territory.

2. **Milk.**—The annual quantity of milk produced per dairy cow reaches as high as 1,000 gallons, varying greatly with breed, locality and season. For the whole of Australia for all dairy cows and for all seasons prior to 1916 it averaged considerably under 300 gallons per annum. In recent years not only has there been an improvement in the quality of the cattle, but the application of scientific methods has been continually extended, and the 300-gallon average has been exceeded in each year since 1924, the yield of 392 gallons in 1931 constituting a record. The annual average yields per cow for the last five years given in the following table are based on the number of dairy cows which were in milk during any part of the year. The average given is, therefore, below that for cows which were yielding during the greater part of the year. It should be noted that there are many difficulties attending the collection of particulars of the total quantity of milk obtained during any year. In addition, there is the further difficulty of ascertaining with reasonable accuracy the average number of cows in milk during the same period. The average yield per cow shown hereunder may be accepted as sufficiently reliable to show the general trend:—

MILK PRODUCTION.

Heading.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia. (b)
1938-39—								
Dairy Cows (a) .. No.	994,155	889,719	961,674	152,686	119,183	93,154	1,041	3,211,612
Production '000 gal.	311,384	377,882	347,336	72,521	45,562	34,140	350	1,189,175
Aver. per cow .. gal.	313	425	361	475	382	366	336	370
1940-41—								
Dairy Cows (a) .. No.	969,341	883,994	1,013,706	159,783	123,111	92,618	1,064	3,243,617
Production '000 gal.	308,048	447,874	279,267	78,762	44,801	31,078	444	1,190,274
Aver. per cow .. gal.	318	501	276	493	364	336	417	367
1941-42—								
Dairy Cows (a) .. No.	951,657	902,662	1,011,339	162,812	126,517	91,582	1,109	3,247,678
Production '000 gal.	279,975	428,691	237,635	78,918	49,050	30,196	405	1,104,870
Aver. per cow .. gal.	294	475	235	485	388	330	365	340
1942-43—								
Dairy Cows (a) .. No.	935,756	888,786	1,027,630	159,850	129,213	84,952	1,118	3,227,305
Production '000 gal.	303,502	381,640	289,808	78,563	46,346	29,371	400	1,129,630
Aver. per cow .. gal.	324	429	282	491	359	309	358	350
1943-44—								
Dairy Cows (a) .. No.	922,867	875,980	1,029,060	159,487	133,931	77,786	1,183	3,200,294
Production '000 gal.	297,175	360,532	260,996	78,172	43,156	26,288	360	1,066,679
Aver. per cow .. gal.	322	412	254	490	322	338	304	333

(a) Mean for the year.

(b) Excludes Northern Territory.

3. **Butter.**—The quantity of butter produced in Australia depends chiefly upon seasonal conditions. There was a steady increase in the annual output of butter for many years prior to the 1939-45 War. The average annual production rose from 120,000 tons for the five years 1924 to 1928 to 195,500 tons for the five years ended 1939-40.

The output of 212,000 tons in 1939-40 was a record. Except for a slight increase in 1942-43 production has declined consistently since that year and for 1945-46 represents a level of about 150,194 tons. The factors contributing to this decline include unfavourable seasons, transfer of man-power owing to the war, shortages of fertilizers for pastures and change in some factories from butter to cheese manufacture.

The following table shows production of butter in factories in each State for the years 1938-39 and 1941-42 to 1944-45.

BUTTER PRODUCTION IN FACTORIES.

Year	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia. (a)
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1938-39 ..	50,822	56,611	68,919	7,836	6,545	4,053	194,786
1941-42 ..	37,998	61,558	42,712	7,912	6,990	3,598	160,768
1942-43 ..	41,864	54,809	49,782	8,065	6,446	3,389	164,355
1943-44 ..	39,222	48,864	45,276	8,049	6,155	3,268	150,834
1944-45 ..	32,019	46,443	42,415	6,974	5,676	3,643	137,170

(a) Northern Territory and Australian Capital Territory: Nil.

The table below shows the monthly production of factory butter in Australia in each of the years 1938-39 and 1941-42 to 1944-45. The annual output of farm butter is also shown.

PRODUCTION OF BUTTER IN FACTORIES AND ON FARMS: AUSTRALIA.

Particulars.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	Tons.	Tons.	Tons.	Tons.	Tons.
Factories—					
July	9,415	10,003	10,317	7,142	6,124
August	11,645	11,028	11,589	8,224	8,586
September	15,531	14,164	14,016	11,591	12,538
October	20,485	17,227	17,206	16,955	16,831
November	22,561	17,605	19,832	20,927	15,955
December	20,710	17,860	19,516	20,997	15,193
January	15,872	12,977	19,521	18,688	15,409
February	15,816	13,261	15,439	14,670	12,129
March	17,729	14,505	13,369	12,194	12,922
April	16,583	12,078	9,067	7,748	8,707
May	15,568	10,283	7,688	6,265	6,784
June	12,871	9,777	6,795	5,433	5,992
Factory Total	194,786	160,768	164,355	150,834	137,170
Made on Farms	8,714	6,863	6,882	5,448	(a) 4,793
Grand Total	203,500	167,631	171,237	156,282	141,963

(a) Estimated.

4. Cheese.—For many years the production of cheese in Australia ranged about 13,400 tons per annum. By 1932-33 production had risen to 16,500 tons and, apart from minor fluctuations, has continued to rise until it reached nearly 36,000 tons in 1943-44. The States contributing chiefly towards this increase are Victoria, Queensland and South Australia.

The following table shows production of cheese in factories in each State in the years 1938-39 and 1941-42 to 1944-45:—

CHEESE PRODUCTION IN FACTORIES.

Year.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.(a)
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1938-39	3,211	8,637	7,031	8,239	436	1,420	28,974
1941-42	2,332	10,037	7,292	8,439	580	1,370	30,050
1942-43	2,297	11,266	12,729	7,999	723	965	35,979
1943-44	2,399	11,868	10,733	8,805	792	1,052	35,649
1944-45	1,964	12,205	10,101	8,244	822	1,122	34,458

(a) Northern Territory and Australian Capital Territory : Nil.

The monthly production of cheese in factories in Australia, together with the annual output from farms, is shown in the table below for 1938-39 and each of the years 1941-42 to 1944-45.

PRODUCTION OF CHEESE IN FACTORIES AND ON FARMS: AUSTRALIA.

Month.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
	Tons.	Tons.	Tons.	Tons.	Tons.
Factories—					
July	1,517	1,669	2,367	1,755	1,572
August	1,950	2,208	3,024	2,288	2,555
September	2,820	3,065	3,707	3,602	3,918
October	4,028	3,891	4,631	5,250	5,273
November	3,990	3,852	4,974	5,521	4,858
December	3,462	3,283	4,261	4,975	4,112
January	2,212	2,196	3,767	3,627	3,264
February	1,715	1,904	2,649	2,634	2,433
March	1,826	2,117	2,220	2,126	2,471
April	1,656	1,909	1,502	1,448	1,496
May	1,898	1,900	1,417	1,199	1,279
June	1,900	2,056	1,460	1,224	1,227
Factory Total	28,974	30,050	35,979	35,649	34,458
Made on Farms	330	93	155	176	162
Grand Total	29,304	30,143	36,134	35,825	34,620

5. Condensed, Concentrated and Powdered Milk, etc.—The manufacture of these products has expanded greatly since 1938-39 due mainly to the demand to meet the needs of the Services during the 1939-45 War. The output for the years 1938-39 and 1940-41 to 1943-44 was as follows:—

PRODUCTION OF CONDENSED, CONCENTRATED AND POWDERED MILK, ETC.

State.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
	lb.	lb.	lb.	lb.	lb.
New South Wales	11,204,574	26,714,311	37,769,089	34,870,506	43,530,151
Victoria	52,475,320	81,114,033	119,162,917	109,746,110	110,764,536
Other States (a)	8,600,558	14,456,699	13,482,670	12,639,360	14,977,972
Total	72,280,452	122,285,043	170,414,676	157,255,976	169,272,659

(a) Separate details not available for publication.

6. War-time Contract—Butter and Cheese.—At the outbreak of war in September, 1939, contracts were negotiated between the Governments of the Commonwealth and the United Kingdom whereby the latter undertook to purchase from Australia, at prices fixed according to grade, surplus quantities of butter and cheese for the period ending June, 1940. The contracts have been further extended to June, 1948. Further details regarding quantities and prices paid may be found in Chapter XXVIII. "Miscellaneous".

7. Oversea Trade in Butter, Cheese and Milk.—The production of butter and cheese in Australia is considerably in excess of local requirements and consequently a substantial surplus is available for export overseas. In normal circumstances the extent of this surplus is chiefly dependent upon the seasonal conditions. In pre-war years the quantity of butter and cheese consumed annually in Australia was about 100,000 tons and 13,400 tons respectively, and production in excess of these amounts was available as surplus for export.

Because of the abnormal requirements due to the presence of Australian and Allied Servicemen in the South-West Pacific Area exports of butter to the United Kingdom have been reduced to a level lower than that attained in any year since 1926-27. During

1938-39, 97,000 tons or 95 per cent. of all butter exported was shipped to the United Kingdom, but by 1944-45 exports to this country had decreased to 37,000 tons or 86 per cent. of the total quantity exported.

Similarly with cheese, and for the same reason, increased production has been accompanied by decreased exports. In 1938-39 exports totalled 16,038 tons of which 15,500 tons were exported to the United Kingdom. By 1944-45, however, the quantity exported to the United Kingdom had declined to 2,800 tons or 18 per cent. of the total of 15,000 tons exported.

All butter and cheese exported comes under the provisions of the Exports (Dairy Produce) Regulations and is subject to the supervision, inspection and examination of officers appointed for that purpose. These commodities are graded according to quality which has been fixed by regulation as follows:—Flavour and aroma, 50 points; texture, 30 points; and condition, 20 points. Butter and cheese graded at 93 to 100 points is of choicest quality; at 90 to 92 points, first quality; at 86 to 89 points, second quality; and at 80 to 85 points, pastry or cooking quality or, in the case of cheese, third quality.

In the following table particulars are given of the relative proportions of butter and cheese graded for export according to quality. Fuller details, which include actual quantities by States, are to be found in *Production Bulletin* No. 38, Part II.

BULK BUTTER AND CHEESE GRADED FOR EXPORT: AUSTRALIA.

Grade.	Butter.			Cheese.		
	1941-42.	1942-43.	1943-44.	1941-42.	1942-43.	1943-44.
	%	%	%	%	%	%
Choicest	50.75	54.78	54.78	5.32	3.88	1.94
First Quality ..	41.91	39.01	37.59	67.14	58.81	61.30
Second Quality ..	6.48	5.52	6.43	27.54	37.31	36.76
Third Quality ..	0.86	0.69	1.20	(a)	(a)	(a)
Total	100.00	100.00	100.00	100.00	100.00	100.00

(a) Included with Second Quality.

The following tables give the imports, exports and net exports of butter, cheese and condensed milk.

BUTTER, CHEESE, AND MILK: IMPORTS AND EXPORTS. AUSTRALIA.

Products.		1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
IMPORTS.						
Butter	lb.	3,425	82	191,549	8,683	25
	£A.	286	10	18,904	967	3
Cheese	lb.	156,188	19,645	139,695	509,580	13,577
	£A.	11,551	1,727	10,630	28,686	1,599
Milk—concentrated and preserved	lb.	44,135	38,149	573,671	296,545	23,403
	£A.	1,048	1,199	22,891	8,143	9,277
EXPORTS.						
Butter	lb.	229,542,779	195,708,596	130,347,196	124,320,720	104,226,518
	£A.	12,891,837	11,973,485	8,124,975	8,085,660	6,870,852
Cheese	lb.	35,924,467	33,907,833	31,457,408	25,664,332	32,974,752
	£A.	1,074,008	1,543,909	1,428,118	1,225,184	1,953,958
Milk—concentrated and preserved	lb.	19,106,953	56,315,000	75,650,451	59,135,863	39,251,891
	£A.	791,100	1,528,951	2,059,724	1,858,137	1,447,979
NET EXPORTS.						
Butter	lb.	229,539,354	195,708,514	130,155,647	124,312,037	104,226,493
	£A.	12,891,551	11,973,475	8,106,071	8,084,693	6,870,849
Cheese	lb.	35,768,279	33,888,188	31,317,713	25,454,752	32,961,175
	£A.	1,062,447	1,542,182	1,417,488	1,196,498	1,952,359
Milk—concentrated and preserved	lb.	19,062,818	56,276,851	75,076,780	58,839,318	39,013,488
	£A.	790,052	1,527,752	2,036,833	1,849,994	1,438,702

8. **Local Consumption of Butter and Cheese.**—The production of butter and cheese less net exports and adjusted by stocks represents the quantity available for consumption in Australia.

As previously mentioned, the quantity of butter required by the Armed Services based upon Australia was such as to limit supplies for export overseas and for consumption in Australia. The former, however, had diminished to such an extent that, in order to prevent further decline, it became necessary to introduce a system of butter rationing on 7th June, 1943. The rate was fixed at 8 oz. per head per week which was reduced to 6 oz. per week as from 7th June, 1944, at which level it still remains.

Cheese, unlike butter, was not rationed, although the supplies available for civil needs were limited to the residue after Service needs and exports had been met. This had the effect of limiting consumption below the level it would have attained if there had been no such restriction. Nevertheless, consumption of cheese rose during the war to offset, in part, the reduced consumption of butter due to rationing.

The following table gives details of the production and disposals of butter and cheese for the periods stated.

PRODUCTION AND DISPOSAL OF BUTTER AND CHEESE: AUSTRALIA.
(^{000 tons.)}

Period.	Changes in Stock.	Production.	Exports.	Consumption by—		Civilian consumption per head per annum.
				Services.	Civilians.	
BUTTER						
1937-1939 (Average)	..	191.0	90.0	..	101.0	lb. 33.0
1943	+ 1.0	165.5	50.0	18.0	96.5	33.5
1944	- 4.4	145.8	46.2	23.3	80.7	27.5
1945	+ 1.3	141.4	39.7	21.9	78.5	26.1
CHEESE.						
1937-1939 (Average)	..	24.9	11.5	..	13.4	lb. 4.4
1943 .. ..	..	36.0	14.0	10.0	12.0	4.1
1944	- 0.1	34.8	14.3	2.5	18.0	6.1
1945	+ 4.3	35.5	10.2	3.0	18.0	6.0

§ 3. Pigs and Pig Products.

1. **Pigs.**—Between 1928 and 1938 the number of pigs fluctuated around one million. In 1938 an upward movement occurred and, except for 1941, when there was a drop, the numbers have exceeded $1\frac{1}{2}$ millions since that year. The maximum number recorded was 1,797,340 in 1940. The distribution of pigs among the States and Territories in 1944 was—New South Wales, 561,294; Victoria, 337,878; Queensland, 450,391; South Australia, 186,007; Western Australia, 163,876; Tasmania, 46,427; Northern Territory, 191; Australian Capital Territory, 657; total 1,746,721.

A more accurate index of the development of pig-raising in Australia is provided in the following table which combines the number of slaughterings with the number returned each year from 1934. The table discloses substantial increases in the number of pigs raised over the period under review:—

NUMBER OF PIGS AND NUMBER SLAUGHTERED: AUSTRALIA.

Year.	Number of Pigs.	Number Slaughtered.	Year.	Number of Pigs.	Number Slaughtered.
1934	1,158,274	1,763,332	1939	1,455,341	1,952,552
1935	1,293,964	1,983,745	1940	1,797,340	2,350,358
1936	1,202,752	2,073,909	1941	1,477,303	2,593,927
1937	1,100,082	1,897,430	1942	1,563,000	2,082,903
1938	1,155,591	1,839,597	1943	1,746,721	1,848,655

2. **Production of Pork.**—With Allied Servicemen in Australia during the war years the demand for pork was considerably increased and producers were encouraged to increase production to the highest level possible in order to meet Service requirements and maintain exports as far as possible. After these requirements had been met, the quantity available for civilian consumption was much less than that normally consumed. In some States the civilian consumption of pork was negligible, but in other parts of Australia, where transport difficulties precluded the marketing of pork in the main centres, civilian consumption was not prohibited. In the following table details of production in each State are given for the years shown:—

PRODUCTION OF PORK (BONE-IN-WEIGHT).

Year.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Northern Territory.	Australian Capital Territory.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1938-39 ..	9,617	10,769	11,844	2,037	1,092	1,623	8	43	37,033
1940-41 ..	10,324	15,243	14,417	4,668	3,951	1,893	16	53	50,565
1941-42 ..	13,826	15,606	12,221	6,796	7,870	1,680	17	70	58,086
1942-43 ..	11,376	9,963	9,343	3,033	3,863	1,347	17	69	39,011
1943-44 ..	14,532	11,226	8,709	5,892	3,640	1,446	17	11	45,482

3. **Consumption of Pork.**—For the three pre-war years ended 1938-39 the average annual production of pork was 46,000 tons, of which 14,000 tons were exported, leaving 32,000 tons, or the carcass equivalent of 10.4 lb. per head per annum, available for local consumption.

As in the case of other meats, the demand for pork for the Armed Services and for exports was such that it was necessary to divert supplies from civilian consumption under the rationing scheme introduced in January, 1944. This resulted in the per capita consumption of pork declining from the pre-war average of 10.4 lb. to 9.0 lb. in 1943, to 7.4 lb. in 1944 and to 3.4 lb. in 1945. In the following table details of the production and disposal of pork are given for the periods stated.

PRODUCTION AND DISPOSAL OF PORK (BONE-IN-WEIGHT): AUSTRALIA.

('000 tons).

Period.	Changes in Stock.	Production (a)	Exports.	Canning.	Consumption by—		Civilian Consumption per head per annum.
					Services.	Civilians.	
1937-39 (Average)	..	46	14	..	.. (b)	32	10.4
1943	39	13	(b)	..	26	9.0
1944 ..	+ ..	58	19	8	8	22	7.4
1945	43	16	13	4	10	3.4

(a) Including an estimate of trimmings from baconer carcasses. Separate details not available.

(b) Included with exports.

4. **Production of Bacon and Ham.**—As in the case of pork, the increased demand for bacon and ham during the war years stimulated production to a level never previously attained. Details of production are given by States in the following table for the years indicated.

PRODUCTION OF BACON AND HAM.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1938-39 ..	11,794	7,370	8,492	2,673	1,894	1,015	..	33,238
1941-42 ..	15,293	8,502	10,923	3,942	2,766	937	1	42,464
1942-43 ..	15,082	8,855	13,057	4,428	4,142	1,238	..	46,802
1943-44 ..	13,913	9,687	11,958	4,605	4,358	1,202	..	45,723
1944-45 ..	20,148	12,103	13,298	4,544	5,007	1,190	..	56,290

5. **Consumption of Bacon and Ham.**—For the three pre-war years ended 1938-39 the annual production of bacon and ham averaged 32,400 tons of which 1,000 tons were exported, leaving 31,400 tons, or 10.2 lb. per head per annum, available for local consumption. The presence of large numbers of Allied Servicemen in Australia during

the 1939-45 War necessitated the diversion of civilian supplies. Bacon and ham was not included in the list of rationed meat but supplies to be placed on the civilian market were determined after the demands for Services and export requirements had been met. Details of production and disposal of bacon and ham are given for the periods stated in the following table.

PRODUCTION AND DISPOSAL OF BACON AND HAM: AUSTRALIA.

('000 tons).

Period.	Changes in Stocks.	Production.	Exports.	Canning.	Consumption by—		Civilian consumption per head per annum.
					Services.	Civilians.	
1937-39 (Average)	..	32.4	1.0	..	..	31.4	10.2
1943 ..	..	39.0	..	(a)	20.0	19.0	6.6
1944 ..	+0.3	51.9	1.6	3.0	17.0	30.0	10.2
1945 ..	-0.1	51.8	5.9	3.0	13.1	30.0	10.0

(a) Included with Services.

6. **War-time Contracts.**—Contracts for the sale of the surplus production of Australian pig meats were concluded between the Governments of the Commonwealth and the United Kingdom. Details will be found in Chapter XXVIII. "Miscellaneous".

7. **Oversea Trade in Pigs and Pig Products.**—The oversea trade in pigs and pig products for the years 1938-39 and 1940-41 to 1943-44 is shown in the following table:—

PIG PRODUCTS : OVERSEA TRADE, AUSTRALIA.

Particulars.			1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Pigs.							
Imports..	..	No.	28	5	9	1	11
		£A.	1,007	183	54	71	691
Exports..	..	No.	69	208	28	..	50
		£A.	621	883	272	..	497
Net Exports	..	No.	41	203	19	-1	39
		£A.	-386	700	218	-71	-194

BACON AND HAM.

Imports..	..	lb.	9,681	428	185,652	549	13
		£A.	597	31	13,027	50	1
Exports..	..	lb.	1,739,053	6,676,900	5,764,260	26,043,208	614,954,984
		£A.	119,994	439,655	395,031	405,290	1,172,784
Net Exports	..	lb.	1,729,372	6,676,472	5,578,608	6,042,659	14,954,971
		£A.	119,397	439,624	382,004	404,240	1,172,783

LARD. ()

Imports..	..	lb.	106,821	2,176	6,634	6,884	9,733
		£A.	3,065	88	229	844	713
Exports..	..	lb.	5,490,959	15,652,900	7,812,207	5,143,127	2,752,038
		£A.	67,744	196,857	131,020	107,782	61,671
Net Exports	..	lb.	5,384,138	15,650,724	7,805,573	5,136,243	2,742,305
		£A.	64,679	196,769	130,791	106,938	60,958

FROZEN PORK.

Imports..	..	lb.	31,805	1,120	81,518	375	..
		£A.	1,770	11	4,240	20	..
Exports..	..	lb.	30,716,417	74,889,552	34,240,367	1,997,030	16,017,199
		£A.	882,117	2,302,656	1,107,929	85,885	587,321
Net Exports	..	lb.	30,684,612	74,888,432	34,158,849	1,996,655	16,017,199
		£A.	880,347	2,302,645	1,103,689	85,865	587,321

(a) Includes 3,410,568 lb. exported as tinned bacon. (b) Includes 6,329,821 lb. exported as tinned bacon. (c) Includes Lard Oil and Refined Animal Fats.

NOTE.—The minus sign (—) signifies net imports.

§ 4. Total Dairy Production.

The dairy production for each State in 1943-44 is shown below :—

DAIRY PRODUCTION, 1943-44.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	A.C.T.	Total.
MILK.								
Used for—	'000 gal.	'000 gal.	'000 gal.	'000 gal.	'000 gal.	'000 gal.	'000 gal.	'000 gal.
Butter ..	(a)196,962	241,285	(b)207,644	39,287	30,615	17,638	20	733,451
Cheese ..	5,539	26,556	23,352	18,466	1,579	2,471	..	77,963
Condensing and concentrating	17,166	42,048	..	(c)	(c)	(c)	..	(d)63,253
Other purposes ..	77,508	50,643	(e)30,000	(f)20,419	(f)10,962	(f)6,179	340	192,012
Total ..	297,175	360,532	260,996	78,172	43,156	26,288	360	1,066,679

BUTTER.

	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.
In Factories On Dairy and other Farms (e)	(g)87,857	109,457	(h)101,416	18,027	13,786	7,325	..	337,868
	4,500	2,182	1,616	1,777	937	1,184	8	12,204
Total ..	92,357	111,639	103,032	19,804	14,723	8,509	8	350,072

CHEESE.

	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.
In Factories On Dairy and other Farms (e)	5,374	26,584	(i)24,042	19,726	1,773	2,356	..	70,855
	151	77	9	..	24	133	..	394
Total ..	5,525	26,661	24,051	19,726	1,797	2,489	..	80,249

CONDENSED, CONCENTRATED AND POWDERED MILK, ETC.

	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.
In Factories	43,530	110,765	(c)	..	..	(c)	..	(d)169,273

BACON AND HAM.

	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.
In Factories On Dairy and other Farms ..	30,680	21,198	26,701	9,896	9,681	2,392	..	100,548
	485	(e)500	(e)86	420	(e)80	300	..	1,871
Total ..	31,165	21,698	26,787	10,316	9,761	2,692	..	102,419

(a) Includes 3,090,885 gallons of milk the produce of New South Wales sent as cream to Victoria and Queensland. (b) Includes 756,943 gallons of milk the produce of Queensland sent as cream to New South Wales. (c) Not available for publication. (d) Includes particulars of States marked (c). (e) Estimated. (f) Includes milk used in the production of condensed, concentrated and powdered milk, etc. (g) Includes 649,183 lb. of butter made from cream the produce of Victoria and Queensland. (h) Includes 279,913 lb. of butter made from cream the produce of New South Wales. (i) Includes 1,720,440 lb. of cheese made in establishments not classified as cheese factories.

§ 5. Value of Dairy Production.

1. Value of Production—Gross and Net—Year 1943-44. The values of dairy production on a gross, local and net basis are shown in the following table. Production values for this and other industries are dealt with more fully in Chapter XXVIII. "Miscellaneous".

GROSS, LOCAL AND NET VALUE OF DAIRY PRODUCTION, 1943-44.

State.	Gross Production valued at Principal Markets.	Marketing Costs.	Gross Production valued at Farm.	Farm Costs.		Net Value of Production. (a)	Depreciation (estimated).
				Fodder fed to Farm Stock.	Value of Other Materials used in process of Production.		
	£	£	£	£	£	£	£
New South Wales ..	17,958,000	1,753,000	16,205,000	2,708,000	(b) 14,000	13,483,000	(c)
Victoria ..	16,982,450	613,797	16,368,653	2,103,869	444,098	13,820,686	25,000
Queensland ..	14,013,400	360,000	13,653,000	1,600,000	320,000	11,733,000	140,000
South Australia ..	4,403,636	133,773	4,269,863	667,265	107,284	3,495,314	15,027
Western Australia ..	2,906,709	117,889	2,788,820	1,007,758	174,537	1,606,525	17,550
Tasmania ..	1,303,390	49,550	1,253,840	557,960	11,690	684,190	70,000
Total ..	57,567,185	3,028,009	54,539,176	8,644,852	1,071,609	44,822,715	(d) 207,577

(a) No deduction has been made for depreciation and maintenance. (b) No allowances made for costs of power, power kerosene, petrol and other oils. (c) Not available. (d) Incomplete.

2 Net Value of Production, 1934-35 to 1943-44. In the following table the net value of dairy production and the net value per head of population are given by States for the years 1934-35 to 1943-44.

NET VALUE OF DAIRY PRODUCTION.

Year.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
NET VALUE. (a).							
	£	£	£	£	£	£	£
1934-35 ..	8,844,000	7,531,415	5,798,796	1,121,089	619,810	445,130	24,360,240
1935-36 ..	9,195,000	9,344,742	5,869,000	1,393,141	505,401	540,600	26,847,884
1936-37 ..	9,128,000	10,778,186	4,957,000	1,587,796	554,010	542,070	27,547,062
1937-38 ..	10,181,000	10,495,005	7,443,000	1,891,356	825,354	733,620	31,589,335
1938-39 ..	10,446,000	9,958,474	9,878,000	1,942,994	893,428	662,860	33,781,756
1939-40 ..	10,887,000	12,332,822	9,799,000	2,194,167	905,372	724,850	36,843,211
1940-41 ..	10,740,000	13,080,352	8,417,000	2,101,945	898,181	468,940	35,706,418
1941-42 ..	10,455,000	12,601,657	7,413,000	2,138,139	1,173,362	562,390	34,343,548
1942-43 ..	13,825,000	12,465,847	10,671,000	2,961,598	1,718,014	602,460	42,243,919
1943-44 ..	13,483,000	13,820,686	11,733,000	3,495,314	1,606,525	684,190	44,822,715

(a) No deduction has been made for depreciation and maintenance.

NET VALUE OF DAIRY PRODUCTION—*continued*.

Year.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
NET VALUE PER HEAD OF MEAN POPULATION.							
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1934-35 ..	3 7 2	4 2 0	6 0 9	1 18 5	1 8 0	1 18 10	3 12 8
1935-36 ..	3 9 3	5 1 4	6 0 9	2 7 6	1 2 7	2 7 0	3 19 7
1936-37 ..	3 8 1	5 16 5	5 0 9	2 14 0	1 4 6	2 6 8	4 1 0
1937-38 ..	3 15 2	5 12 10	7 9 7	3 4 0	1 16 1	3 4 1	4 12 0
1938-39 ..	3 16 5	5 6 3	9 16 3	3 5 5	1 18 8	2 16 0	4 17 6
1939-40 ..	3 18 10	6 10 6	9 12 1	3 13 4	1 18 8	3 0 7	5 5 4
1940-41 ..	3 17 2	6 16 3	8 3 1	3 10 1	1 18 0	1 19 0	5 1 1
1941-42 ..	3 14 7	6 9 0	7 2 10	3 10 5	2 10 1	2 6 11	4 16 3
1942-43 ..	4 17 8	6 6 6	10 4 8	4 16 8	3 11 7	2 9 11	5 17 4
1943-44 ..	4 14 5	6 19 0	11 1 9	5 13 0	3 6 7	2 16 1	6 3 4

§ 6. Poultry-Farming.

1. **General.**—Poultry-farming has been carried on in Australia for many years and the State Departments of Agriculture have encouraged its development by appointing experts to advise on the care and management of poultry and by conducting egg-laying competitions.

Originally the industry was conducted in conjunction with other branches of rural activity, mainly dairying, but it is now a specialized and distinct industry. It is from this source that the bulk of the commercial production is obtained. Practically all farms keep poultry for the purpose of supplying their own domestic requirements and in many cases some supplies from this source are also marketed. In addition, small numbers of fowls are kept in backyards of some private homes and this helps to maintain domestic needs particularly when eggs are in short supply as was the case during the war years.

2. **Numbers of Poultry.**—In pre-war years the numbers of the principal kinds of poultry was a normal feature of the annual census of live-stock in all States except Victoria and Tasmania. This collection was suspended during 1941-42 but was resumed in 1942-43 and extended to cover all States. It was not, however, resumed on the previous basis, but was restricted to farms of 1 acre or more producing eggs or poultry for sale. Moreover, the details do not include poultry held by persons (including "backyard" poultry-keepers) producing for their own use as well as those who are producing from areas of less than 1 acre. Because of this incompleteness, details of poultry numbers are not published.

3. **Recorded Production and Disposals of Eggs.**—(i) *Shell Eggs.* Available statistics of the production and disposals of eggs in Australia are restricted to those recorded by the Egg Boards of the several States.

Egg Boards, or authorities appointed to control the marketing of eggs, have operated in the States of New South Wales, Victoria and Queensland for some years whilst in South Australia the Board commenced to operate in August, 1942. It was not until August, 1943 that Advisory Committees were established in Western Australia and Tasmania. These authorities were created under National Security Regulations. Statistics of recorded production of eggs for Australia as a whole, therefore, are not available prior to 1943-44.

In the following table details of receipts and disposals of eggs, as recorded by these authorities, are shown for Australia for 1943-44 and 1944-45.

SHELL EGGS : RECEIVALS AND DISPOSALS RECORDED BY EGG BOARDS.

Particulars.	Year ended June—	
	1944.	1945.
RECEIVALS.		
	Doz.	Doz.
Stock held at beginning of year	178,105	7,434
Receipts from Consignors	64,164,506	80,898,566
Receipts from Producer Agents	24,999,998	23,124,060
Withdrawals from Cold Storage	132,438	859,345
Interstate Transfers	1,848,270	165,870
Other Sources	750	..
Total	91,324,067	105,055,275
DISPOSALS.		
	Doz.	Doz.
Sales by Egg Boards	39,767,318	45,617,933
Sales by Producer Agents	24,999,998	23,124,060
Packed for Cold Storage	127,055	913,945
Packed for Powder	10,557,050	17,901,730
Packed for Pulp	13,430,403	16,490,811
Interstate Transfers	1,848,270	165,870
Other Disposals	586,539	826,766
Stocks held at end of year	7,434	14,160
Total	91,324,067	105,055,275

The receipts—in million dozen—recorded in each State during the year ended June, 1945 were as follows—New South Wales, 47.4; Victoria, 28.0; Queensland, 9.5; South Australia, 11.1; Western Australia, 6.8 and Tasmania, 1.2.

(ii) *Whole Egg Pulp.* Considerable quantities of eggs are pulped for use in the manufacture of cakes, pastry and biscuits. In 1943-44 production amounted to 17,416,399 lb. and in 1944-45 to 23,795,411 lb. New South Wales, in addition, produces liquid egg whites and liquid egg yolks. The amounts produced in 1944-45 were 222,976 lb. and 161,124 lb. respectively compared with 173,559 lb. and 111,350 lb. in 1943-44.

(iii) *Egg Powder.* The production of dried egg powder was not established in Australia until 1942, when the industry was introduced to treat Australia's surplus eggs so as to maintain exports to the United Kingdom. The shortage of refrigerated shipping space precluded the export of shell eggs so they were converted into powdered form. Following the outbreak of war in the Pacific in December, 1941, when Australia undertook responsibility for the feeding of the fighting services in the South-West Pacific Area, the bulk of the egg powder produced was diverted, however, for use by Australian and Allied Servicemen.

Details of production of egg powder are given in the table below.

PRODUCTION OF EGG POWDER.

State.	1942-43.	1943-44.	1944-45.
	lb.	lb.	lb.
New South Wales	1,145,035	1,407,034	1,918,244
Victoria	699,102	1,044,353	1,361,179
Queensland .. .. .	..	..	..
South Australia	255,199	663,435	1,093,200
Western Australia	244,945	355,781	406,074
Tasmania .. .. .	..	..	..
Australia	2,344,281	3,470,603	4,778,697

4. Oversea Trade in Poultry Products.—The Australian overseas export of poultry products is confined chiefly to eggs in shell and egg contents which are mainly consigned to the United Kingdom; New South Wales, Victoria and South Australia are at present the largest exporters. Exports of eggs from Australia rose from less than 3 million dozen valued at £219,000 in 1928-29 to 21.7 million dozen valued at more than £1.1 million in 1934-35, but declined to 19.3 million dozen in 1939-40. A high level of exports in 1940-41 was followed by a steep decline in 1941-42 and a further decrease in 1942-43 and 1943-44 to almost negligible quantities. A feature has been a reverse trend in egg contents for which an excess of imports in 1939-40 has changed to an excess of exports of 1.1 million, 5.9 million, 2.7 million and 3.9 million lb. for 1940-41, 1941-42, 1942-43 and 1943-44 respectively.

The overseas trade during the four years ended 1943-44 in comparison with 1938-39 was as follows:—

POULTRY PRODUCTS: TRADE, AUSTRALIA.

Australian Currency Values.

Particulars.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
LIVE POULTRY.					
Imports	No. 29	12	1	..	4
	£ 139	53	4	..	28
Exports	No. 2,189	2,194	330	70	8,900
	£ 970	1,442	161	75	7,970
Net Exports	No. 2,160	2,182	329	70	8,896
	£ 831	1,389	157	75	7,942

FROZEN POULTRY.

Imports	lb. 83	..	14,336	..	47
	£ 8	..	1,527	..	4
Exports	pair 21,768	44,728	21,010	8,314	44,825
	£ 19,917	27,521	15,815	4,285	36,077
Net Exports .. .. .	.. (a)	(a)	(a)	8,314 (pair)	(a)
	£ 19,909	27,521	14,288	4,285	36,073

Eggs.

Imports	doz. 105,330	3,347	2,620	..	8
	£ 8,188	296	292	..	30
Exports	doz. 10,144,344	17,881,732	6,306,532	394,600	361,885
	£ 638,159	1,122,758	402,795	33,385	32,552
Net Exports	doz. 10,039,014	17,878,385	6,303,912	394,600	361,877
	£ 629,971	1,122,462	402,503	33,385	32,522

EGG CONTENTS.

Imports	lb. 68,567	718	..	..	..
	£ 4,936	109	..	..	..
Exports	lb. 650,470	1,095,356	5,909,610	2,723,212	3,894,242
	£ 23,065	45,354	762,647	351,346	343,941
Net Exports	lb. 581,903	1,094,638	5,909,610	2,723,212	3,894,242
	£ 13,129	45,245	762,647	351,346	343,941

(a) Quantity not available.

5. **Value of Poultry Products—Gross and Net.**—(i) *General.* Difficulty is experienced in obtaining complete figures for the production of poultry products. The following table sets out the values accruing to the poultry industry for Australia on a gross, local and net basis, and has been compiled from data actually collected or carefully estimated by the State Statisticians:—

GROSS, LOCAL AND NET VALUE OF POULTRY PRODUCTS, 1943-44.

State.	Gross Production valued at Principal Markets.	Marketing Costs.	Gross Production valued at Farm.	Feed and Other Costs.	Net Value of Production. (a)
	£	£	£	£	£
New South Wales ..	7,680,000	735,000	6,945,000	2,355,000	4,590,000
Victoria ..	7,250,997	643,825	6,607,172	1,455,170	5,152,002
Queensland ..	1,478,000	196,250	1,281,750	495,000	786,750
South Australia ..	1,832,536	167,661	1,664,875	533,231	1,131,644
Western Australia ..	1,059,409	198,510	860,899	163,850	697,049
Tasmania ..	602,040	45,150	556,890	29,840	527,050
Total ..	19,902,982	1,986,396	17,916,586	5,032,091	12,884,495

(a) No deduction has been made for depreciation and maintenance.

(ii) *States 1934-35 to 1943-44.* In the following table the net value of poultry products and the net value per head of population are given by States for the years 1934-35 to 1943-44:—

NET VALUE OF POULTRY PRODUCTS.

Year.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
NET VALUE. (a)							
	£	£	£	£	£	£	£
1934-35 ..	1,849,000	2,185,047	248,679	339,335	322,478	317,120	5,261,659
1935-36 ..	2,203,000	2,333,620	299,000	257,088	270,414	305,440	5,668,562
1936-37 ..	2,186,000	2,301,568	322,000	244,354	288,624	338,540	5,681,086
1937-38 ..	2,248,000	2,902,026	362,000	326,492	251,060	367,110	6,456,688
1938-39 ..	2,658,000	3,112,609	376,000	436,425	294,216	425,240	7,302,490
1939-40 ..	2,337,000	3,099,861	319,000	532,747	292,756	397,470	6,978,834
1940-41 ..	2,526,000	2,283,963	403,000	398,312	270,055	382,310	6,263,640
1941-42 ..	2,225,000	2,636,248	419,500	440,105	329,571	446,330	6,496,754
1942-43 ..	3,392,000	4,807,716	576,250	750,063	674,228	523,560	10,723,817
1943-44 ..	4,590,000	5,152,002	786,750	1,131,644	697,049	527,050	12,884,495

NET VALUE PER HEAD OF MEAN POPULATION.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1934-35 ..	0 14 1	1 3 10	0 5 2	0 11 7	0 14 7	1 7 8	0 15 8
1935-36 ..	0 16 7	1 5 5	0 6 2	0 8 9	0 12 1	1 6 6	0 16 10
1936-37 ..	0 16 4	1 4 10	0 6 6	0 8 4	0 12 9	1 9 2	0 16 8
1937-38 ..	0 16 7	1 11 2	0 7 3	0 11 1	0 11 0	1 11 3	0 18 10
1938-39 ..	0 19 5	1 13 2	0 7 6	0 14 8	0 12 9	1 15 11	1 1 1
1939-40 ..	0 17 0	1 12 10	0 6 3	0 17 10	0 12 7	1 13 3	1 0 0
1940-41 ..	0 18 2	1 3 9	0 7 10	0 13 4	0 11 5	1 11 10	0 17 7
1941-42 ..	0 15 11	1 7 0	0 8 1	0 14 6	0 14 1	1 17 2	0 18 3
1942-43 ..	1 4 0	2 8 9	0 11 1	1 4 6	1 8 1	2 3 4	1 9 10
1943-44 ..	1 12, 2	2 11 10	0 14 10	1 16 7	1 8 11	2 3 2	1 15 6

(a) No deduction has been made for depreciation and maintenance.

§ 7. Bee-Farming.

1. **General.**—Although practised as a separate industry, bee-farming is also carried on in conjunction with other branches of farming. The returns of honey from productive hives during 1943-44 gave an average of 70.1 lb. per hive and the average quantity of wax was 0.98 lb. per hive.

2. **Production of Honey and Bees-wax.**—The number of hives and the production of honey and bees-wax during the year 1943-44 are given in the following table. As these details have been collected from holdings of one acre and upwards, any production

from smaller areas is omitted and consequently the production is understated to that extent. In Victoria and South Australia, however, the compulsory registration of bee-keepers enables the collection to cover all producers and the production for these States is considered to be complete.

BEEHIVES, HONEY AND BEES-WAX, 1943-44.

State.	Beehives.			Honey Produced.		Bees-wax Produced.	
	Pro- ductive.	Unpro- ductive.	Total.	Quantity.	Gross Value.	Quantity.	Gross Value.
	No.	No.	No.	lb.	£	lb.	£
New South Wales ..	66,200	14,214	80,414	7,722,302	201,000	105,688	13,000
Victoria ..	a 72,008	a 18,002	a 90,010	2,544,760	79,524	33,796	4,225
Queensland ..	21,248	6,628	27,876	1,788,005	a 30,020	24,225	2,980
South Australia ..	b 49,354	b 9,177	b 58,531	a3,000,000	78,125	40,000	4,583
Western Australia ..	12,426	1,714	14,140	767,712	17,593	13,500	1,688
Tasmania ..	3,338	1,113	4,451	121,273	3,030	1,794	270
Aus. Cap. Territory	60	26	86	3,900	102	34	4
Australia ..	224,634	50,874	275,508	15,947,952	409,394	219,037	26,750

(a) Estimated.

(b) Year 1940-41.

The production of honey and bees-wax fluctuates considerably and is determined mainly by the flow of nectar from flora of the eucalypts which varies greatly from year to year.

The table hereunder gives the production of honey and bees-wax for the six years ended 1943-44 :—

HONEY AND BEES-WAX PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	A.C.T.	Australia.
HONEY.								
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
1938-39	2,723,719	1,340,946	1,164,536	2,940,877	754,254	148,473	1,280	9,073,185
1939-40	2,477,381	2,752,125	1,049,442	2,388,647	828,168	164,764	770	9,661,297
1940-41	4,771,422	4,503,927	1,174,427	5,324,611	1,246,354	151,168	5,896	17,177,805
1941-42	7,465,926	5,496,851	456,000	4,400,000	1,863,765	80,982	300	19,763,824
1942-43	1,700,000	4,600,000	500,000	4,300,000	900,000	100,000	..	12,100,000
1943-44	7,722,302	2,544,760	1,788,005	3,000,000	767,712	121,273	3,900	15,947,952
BEES-WAX.								
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
1938-39	43,780	22,285	17,463	40,257	15,050	1,780	60	140,675
1939-40	42,393	35,630	15,259	30,952	11,549	1,668	25	137,476
1940-41	68,670	56,850	16,016	66,527	16,423	2,388	11	226,885
1941-42	124,432	64,484	19,337	40,000	22,296	1,699	..	272,248
1942-43	(b)	60,587	(b)	60,000	(b)	(b)	(b)	(b)
1943-44	105,688	33,796	24,225	40,000	13,500	1,794	34	219,037

(a) Estimated.

(b) Not available.

3. *Oversea Trade in Bee Products.*—In normal years the production of honey exceeds Australian requirements and a small quantity is available for export. For the year 1941-42 the exports from Australia amounted to £312,679 compared with a total of £51,959 in 1942-43 and £81,499 in 1943-44. Of the 10.2 million lb. of honey exported in 1941-42, 9.7 million lb. was shipped to the United Kingdom.

The more general use of frame hives has reduced the production of wax, and as a result the quantity imported has exceeded that exported during each of the last five years.

For the year 1941-42 the exports of honey amounted to 10,223,707 lb. compared with 1,743,302 lb. in 1943-44.

The imports of bees-wax amounted to 156,484 lb. in 1941-42 compared with 233,163 lb. in 1942-43 and 6,506 lb. in 1943-44.

4. **Value of Production—Gross and Net.**—(i) *General.* The following table shows the gross, local and net values of production which have been compiled by the Statisticians of the several States by uniform methods. These data are based upon actual records but, as previously explained, it is known that the production in some States is understated. As production costs are not known they are not taken into account and, consequently, the gross production valued at the farm and net values shown are identical:—

GROSS, LOCAL AND NET VALUE OF BEE PRODUCTS, 1943-44.

State.	Gross Production Valued at Principal Markets.	Marketing Costs.	Gross Production Valued at Farm.	Net Value of Production.(a)
	£	£	£	£
New South Wales	214,000	18,000	196,000	196,000
Victoria	83,749	10,885	72,864	72,864
Queensland	33,000	3,750	29,250	29,250
South Australia	82,708	9,802	72,906	72,906
Western Australia	19,281	..	19,281	19,281
Tasmania	3,300	160	3,140	3,140
Total	436,038	42,597	393,441	393,441

(a) No deduction has been made for depreciation and maintenance.

(ii) *States 1934-35 to 1943-44.* In the following table the net value of bee products and the net value per head of population are given by States for the years 1934-35 to 1943-44:—

NET VALUE OF BEE PRODUCTS.

Year.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
NET VALUE. (a)							
	£	£	£	£	£	£	£
1934-35	95,000	39,540	10,458	43,052	14,037	1,420	203,507
1935-36	66,000	77,505	6,000	31,367	12,137	4,210	199,219
1936-37	43,000	45,360	5,000	28,053	19,803	2,740	143,956
1937-38	51,000	59,930	5,000	20,645	18,850	5,180	160,605
1938-39	43,000	23,448	15,000	27,857	10,591	2,770	122,666
1939-40	42,000	62,838	14,000	31,698	11,976	3,710	166,222
1940-41	102,000	92,010	19,000	72,693	19,251	4,030	308,984
1941-42	146,000	132,956	19,500	75,698	31,445	2,380	407,979
1942-43	40,000	130,408	9,750	110,787	30,000	2,380	323,325
1943-44	196,000	72,864	29,250	72,906	19,281	3,140	393,441

NET VALUE PER HEAD OF MEAN POPULATION. (a)

	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1934-35	0 8	0 5	0 3	1 6	0 7	0 1	0 7
1935-36	0 6	0 10	0 1	1 1	0 6	0 4	0 7
1936-37	0 4	0 6	0 1	0 11	0 10	0 3	0 5
1937-38	0 5	0 8	0 1	0 8	0 10	0 5	0 6
1938-39	0 4	0 3	0 3	0 11	0 5	0 3	0 4
1939-40	0 4	0 8	0 3	1 1	0 6	0 2	0 6
1940-41	0 9	1 0	0 4	2 5	0 10	0 4	0 10
1941-42	1 0	1 4	0 5	2 6	1 4	0 3	1 2
1942-43	0 3	1 3	0 2	3 7	1 3	0 2	0 11
1943-44	1 4	0 9	0 7	2 4	0 10	0 3	1 1

(a) No deduction has been made for depreciation and maintenance.

§ 8. Exports of Australian Farmyard, Dairy and Bee Products.

The quantities and values of Australian farmyard, dairy and bee products exported during each of the four years ended 1943-44 are shown below in comparison with 1938-39.

AUSTRALIAN FARMYARD, DAIRY AND BEE PRODUCTS : EXPORTS.

Particulars.	Unit of Quantity.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
QUANTITY.						
Bees-wax	lb.	5,565	6,774	956	56	..
Butter	"	229,542,779	195,708,596	130,347,196	124,320,720	104,226,518
Cheese	"	35,924,467	33,907,833	31,457,305	25,964,332	32,974,752
Eggs not in shell	"	650,470	1,095,356	5,909,610	2,723,212	3,894,242
Eggs	doz.	10,144,344	17,881,732	6,306,532	394,600	361,885
Feathers, undressed	"	(a)	(a)	(a)	(a)	(a)
Honey	lb.	687,007	4,194,038	10,223,707	1,332,027	1,743,302
Lard	"	5,490,959	15,652,900	7,812,207	5,141,939	2,752,038
Meats—						
Bacon and ham	"	1,739,053	6,676,900	5,764,260	66,043,208	614,954,984
Frozen poultry	pr.	21,768	44,728	21,010	8,314	44,825
Frozen pork	lb.	30,716,417	74,889,552	34,240,367	1,997,030	16,017,199
Milk, concentrated and preserved	"	19,106,953	56,315,000	75,641,102	59,135,863	39,248,681
Pigs, live	No.	69	208	28	..	43
Poultry, live	"	2,189	2,194	330	70	8,900

VALUE.

	£A.	£A.	£A.	£A.	£A.
Bees-wax	148	527	40	6	..
Butter	12,891,837	11,973,485	8,124,975	8,085,660	6,870,852
Cheese	1,074,008	1,543,909	1,428,111	1,225,184	1,953,958
Eggs not in shell	23,065	45,354	762,647	351,346	343,941
Eggs in shell	638,159	1,122,758	402,795	33,385	32,552
Feathers, undressed	307	2,840	3,497	4,731	4,292
Honey	13,957	126,468	312,679	51,959	81,499
Lard	67,744	196,857	131,020	107,730	61,671
Meats—					
Bacon and ham	119,994	439,655	395,031	405,290	1,172,784
Frozen poultry	19,917	27,521	15,815	4,285	36,077
Frozen pork	882,117	2,302,656	1,107,929	85,885	587,321
Milk, concentrated and preserved	791,100	1,528,951	2,059,355	1,858,137	1,447,998
Pigs, live	621	883	272	..	419
Poultry, live	970	1,442	161	75	7,976
Total	16,523,944	19,313,306	14,744,327	12,213,673	12,601,034

(a) Quantity not available.

(b) Includes amount exported as tinned bacon.

§ 9. British Imports of Dairy Products.

1. Quantities and Values.—The following table gives the quantities and values of the principal dairy products imported into the United Kingdom during the years 1939 to 1943.

DAIRY PRODUCTS : IMPORTS INTO UNITED KINGDOM.

Products.		1939.	1940.	1941.	1942.	1943.
Butter	cwt.	8,736,967	5,287,013	4,362,574	2,686,288	3,032,189
	£	48,424,422	32,957,727	27,755,449	17,746,994	20,808,422
Cheese	cwt.	2,845,425	3,124,387	4,068,775	6,305,951	4,139,869
	£	8,868,544	11,950,288	16,335,934	27,764,108	19,789,163
Milk, powdered and preserved	cwt.	1,698,896	1,685,976	3,318,474	5,137,999	4,366,999
	£	2,817,760	4,106,800	8,494,205	12,794,685	10,977,498
Bacon and ham	cwt.	7,895,493	4,772,006	5,484,039	6,519,212	6,689,864
	£	36,706,410	26,248,042	25,505,210	33,993,059	38,797,629
Pork, chilled or frozen	cwt.	988,804	1,139,314	1,670,986	1,995,446	4,320,921
	£	3,036,040	3,826,287	5,766,880	9,104,809	22,522,766
Eggs, dried	cwt.	9,928	20,275	169,850	1,125,467	1,468,527
	£	85,197	216,787	2,737,399	21,322,840	30,518,133
Eggs in shell	cwt.	28,330,494	14,894,198	8,894,464	3,381,357	2,293,985
	£	12,834,701	9,883,369	7,320,369	3,342,151	2,586,025

2. **Butter.**—(i) *Imports.* Australia has for many years supplied a large proportion of the butter imported into the United Kingdom. The quantity in 1943 amounted to 880,273 cwt., or 29 per cent. of the total importation. The Australian contribution was valued at £5,920,417 and was exceeded only by that received from New Zealand. These two countries combined supplied 94 per cent. of the total imports in 1943.

BUTTER : IMPORTS INTO UNITED KINGDOM, 1943.

Country from which imported.						Quantity.	Value.
						Cwt.	£ Stg.
New Zealand	..	..	..	..	..	2,007,698	13,618,842
Australia	..	..	..	..	..	880,273	5,920,417
Canada	..	..	..	..	..	63,503	737,397
Eire	..	..	..	..	..	2,841	42,031
Other British Countries	..	..	..	..	..	189	1,143
Argentine Republic	..	..	..	..	..	69,970	446,105
United States of America	..	..	..	..	..	7,688	42,298
Other Foreign Countries	..	..	..	..	..	27	189
Total	..	..	..	..	..	3,032,189	20,808,422

(ii) *London Prices.* Fluctuations in prices in London during recent years are shown in the following table. Until September, 1939, the prices quoted represent the mean of the top prices quoted weekly for choicest salted Australian butter together with their f.o.b. equivalents in Sydney and Melbourne in terms of Australian currency. Since September, 1939, the price represents that fixed in accordance with the contract between the Governments of Australia and the United Kingdom for choicest Australian butter. Pence have been omitted throughout.

AVERAGE PRICE PER CWT. OF AUSTRALIAN CHOICEST BUTTER IN LONDON (WITH F.O.B. EQUIVALENTS IN AUSTRALIAN CURRENCY).

Month.	1938-39.		1939-40.		1940-41-42.		1942-43-44.		1944-45-46.	
	London.	Australia. (a)	London.	Australia.	London.	Australia.	London.	Australia.	London.	Australia.
	Shillings (Stg.).	Shillings (Aust.).	Shillings (Stg.).	Shillings (Aust.).	Shillings (Stg.).	Shillings (Aust.).	Shillings (Stg.).	Shillings (Aust.).	Shillings (Stg.).	Shillings (Aust.).
July	120	135	114	(a)127	(c)	(b)	(c)	(b)	(c)	(b)
August	118	132	110	(a)123	110	137	114	143	148	185
September	116	130	120	(a)135	110	137	114	143	148	185
October	111	124	(c)110	(b)137	110	137	114	143	148	185
November	104	115	(c)110	(b)137	110	137	114	143	148	185
December	107	119	(c)110	(b)137	110	137	114	143	148	185
January	120	134	(c)110	(b)137	110	137	114	143	148	185
February	118	132	(c)110	(b)137	110	137	114	143	148	185
March	115	128	(c)110	(b)137	110	137	114	143	148	185
April	113	126	(c)110	(b)137	110	137	114	143	148	185
May	107	119	(c)110	(b)137	110	137	114	143	148	185
June	113	126	(c)110	(b)137	110	137	114	143	148	185

(a) Sydney and Melbourne. (b) Equivalent of contract price. (c) Contract price f.o.b. Australian ports. Equivalent under pre-war conditions would be 122s. stg. covering the period 1939 to 1942, 126s. stg. during 1942 to 1944 and 149s. stg. during the contract period 1944 to 1946.

3. **Cheese.**—The value of cheese imported into the United Kingdom in 1943 was £19,789,163, of which £8,300,221 was received from New Zealand, £6,290,638 from Canada and £4,536,645 from the United States of America. Imports from Australia during 1943 were valued at £661,546.

4. **Bacon and Ham.**—Of a total import in 1943 of bacon and ham valued at £38,797,629 Canada supplied £30,681,858 and United States of America £8,115,213. Small shipments from other countries amounted to £558. Exports of bacon and hams from Australia to the United Kingdom were prohibited during this period.

5. **Pork.**—The value of the United Kingdom imports of pork (frozen and chilled) was £22,252,769 in 1943. Imports from Australia were small, amounting to £34,880 only. The principal supplies were obtained from United States of America £15,900,844, Argentine Republic £5,522,569 and Canada £776,237.

6. **Eggs.**—In 1943 the value of eggs imported into the United Kingdom was £33,104,159 comprising eggs in shell £2,586,026 and dried eggs £30,518,133. The Australian share in this trade was insignificant and amounted to £52,342 only. Eggs in shell were supplied by Eire £2,129,994 and Argentine Republic £406,755. The principal exporters of dried eggs to the United Kingdom were United States of America £25,679,891, Canada £3,509,739 and Argentine Republic £1,276,161.

7. **Other Products.**—The imports into the United Kingdom from Australia of bees-wax, poultry, game, lard, honey and frozen rabbits in 1943 were unimportant.

CHAPTER XXII.

FORESTRY.*

§ 1. General.

1. **Objects of Forestry.**—Forestry aims at the preservation and development of existing forest areas by safeguarding them against fire, pests and destructive agencies generally, by expert supervision of the removal of timber, by judicious thinning and by reforestation of denuded areas. It provides also for the continuance of this indispensable form of national wealth by the afforestation of available bare lands with suitable forest species of local or exotic origin. Only small areas of virgin forest still remain in Australia, as extensive inroads have been made by timber getters, by agriculturalists and by pastoralists—who have destroyed large areas by “ring-barking”—and not infrequently serious desiccation and soil erosion have followed such operations. It is recognised that a forest covering tends to regulate the effects of rainfall to the best advantage and that beneficial consequences follow the planting of trees on denuded and eroded lands. The remaining virgin forests of Australia consist largely of hardwood jungle, or brush, with very little softwood, and the need for extensive afforestation with softwoods is urgent.

Forestry is of particular interest in connexion with the Murray River Basin, where a large expenditure from the public funds has been incurred in the provision of locks and weirs and in the formation of irrigation settlements in the lower course of the river. The stability of flow of this river and the control of erosion and siltation in so far as it can be assured by afforestation and the maintenance of arboreal cover may be regarded as of national importance.

Successful planting of exotics in various parts of Australia has demonstrated that both climate and soil are suitable for the cultivation of a number of highly serviceable softwoods.

2. **Extent of Forests.**—(i) *Australia.* The bulk of the present local timber supply comes from the thickly forested areas in the 30-inch and over rainfall belt south of the tropics, and the 70-inch and over rainfall belt within the tropics. The total forest area included in the divisions specified is comparatively small, and is confined to the following regions:—(a) The coastal belt in the extreme south-west of Western Australia, from a little north of Perth to Albany; (b) the Otway country in the south of Victoria, and the whole of the south-eastern portion of that State; (c) the mountain forests of Victoria and New South Wales; (d) the coastal districts of New South Wales and Queensland; (e) the greater portion of Tasmania; (f) the forests on the Murray River near Echuca; and (g) the cypress pine belt from the Murray northward to Queensland and westward of the coastal belt.

Over 90 per cent. of the timber trees of Australia consists of hardwoods belonging to the genus *Eucalyptus* (Gum Trees). Including the malées, over 400 species are now recognized, but the chief commercial varieties are confined to about 50 species.

In addition to the hardwood forests and the cypress pine belt the coastal strip in Queensland and northern New South Wales provides “rain” or “brush” forests. These tropical forests furnish the serviceable hoop pine and furniture timbers such as black bean, Queensland walnut and maple, silkwood, etc.

* A specially contributed article dealing with Forestry in Australia appeared as part of this chapter in Official Year Book No. 19 (see pp. 701–12 therein).

The drier wooded area of the continent contains a large number of xerophilous trees and woody shrubs which thrive in regions receiving less than 10 inches of rain per annum. Country devoid of tree growth is comparatively rare. Unsuitable soil conditions such as basalt formations, clay-pans, rock exposures or sand-dunes are as a rule more responsible for treeless areas than lack of rainfall. The 300-mile stretch of the Nullarbor Plain is a treeless area where the non-retentive limestone foundation accentuates the effects of a low rainfall. While, however, the major portion of Australia carries trees, and may be said to be wooded (the term "desert" applying to relatively small areas only), dense forest is confined to a very narrow fringe. The savannah forests of the interior yield minor products such as sandalwood and tan barks, but do not produce timber. These open park-like formations carry scattered trees of low habit only. Practically the whole of Papua and New Guinea carries or has carried dense forests, the exceptions being certain small dry belts where the rainfall is less than 70 inches. Norfolk Island was originally covered with a thick jungle.

Special articles relating to Australian Eucalyptus timbers and the chemical products of eucalypts appear in Official Year Book No. 10, pp. 85-98.

Scientific surveys of the forests of the various States have not yet been completed and there are, in consequence, conflicting reports regarding the total forest area of Australia. At the Interstate Conference on Forestry, held at Hobart in April, 1920, it was resolved that a forest area of 24,500,000 acres was necessary to provide for the future requirements of Australia. This area was subsequently adopted at the Premiers' Conference held in May, 1920. Qualified foresters, however, consider that approximately 19,500,000 acres represent the possible limit for permanent reservation in Australia. The distribution of the latter area throughout the States was estimated as follows:—

ESTIMATED FOREST AREA.

State.				Total Forest Area.	Percentage on Total Area.
				Acrea.	Per Cent.
New South Wales	..	..	..	4,000,000	2.02
Victoria	..	..	..	5,500,000	9.78
Queensland	..	..	..	6,000,000	1.40
South Australia	..	..	..	500,000	0.21
Western Australia	..	..	..	3,000,000	0.48
Tasmania	..	..	..	500,000	2.98
Australia..				19,500,000	1.02

(ii) *Comparison with Other Countries.* The table hereunder shows the absolute and relative forest areas of Australia and other countries, and the relative areas owned by the State, by Public Institutions and by private individuals, prior to the 1939-45 War, in so far as the details are available. The term "Public Institutions" appears to include local governmental and ecclesiastical authorities, while those held by public companies, co-operative societies, etc., are included with private individuals.

The figures are based on information supplied to the International Institute of Agriculture and are the latest available. Comparisons of the returns for different countries are, however, subject to the qualification that the significance of the term "forest" is not identical in all cases. In older countries, and chiefly in Europe, scientific forestry has been practised for centuries whereas in newer lands, such as Australia, Canada, etc., it is of comparatively recent application. Moreover, considerable areas included as forests in the newer countries contain indigenous growth of little or no commercial value, and effective comparisons cannot, therefore, be made with countries where efficient forestry has been practised for many years.

FORESTS : AREA AND OWNERSHIP, VARIOUS COUNTRIES.

Country.	Forest Area.	Per cent. of Total Area.	Percentage Owned by—		
			State.	Public Institutions other than State.	Private Individuals.
	Sq. miles.	Per cent.	Per cent.	Per cent.	Per cent.
U.S.S.R. (Russia) ..	3,667,530	44.7	100.0	..	..
Canada ..	1,151,402	32.8	(a)	(a)	(a)
United States of America ..	733,539	24.7	(a)	(a)	(a)
India ..	307,928	27.5	(a)	(a)	(a)
Nigeria ..	234,990	63.8	(a)	(a)	(a)
Finland ..	97,540	73.5	39.8	1.7	58.5
Sweden ..	89,500	56.5	20.1	3.8	76.1
Japan ..	87,678	59.5	(a)	(a)	(a)
Germany ..	49,991	27.5	32.6	17.2	50.2
France ..	40,768	19.2	13.9	23.6	62.5
Poland ..	32,246	21.5	36.1	..	63.9
Australia (b) ..	30,469	1.0	(a)	(a)	(a)
Yugoslavia ..	29,504	30.6	37.5	28.9	33.6
Norway ..	29,454	24.7	13.0	6.4	80.6
Turkey ..	28,703	9.7	94.4	..	5.6
Rumania ..	27,544	24.2	30.5	18.3	51.2
Italy ..	22,425	18.7	3.0	34.0	63.0
New Zealand ..	20,778	20.2	(a)	(a)	(a)
Spain ..	19,305	10.0	(a)	(a)	(a)
Czechoslovakia ..	17,925	33.0	20.4	15.6	64.0
Union of South Africa ..	15,958	3.4	(a)	(a)	(a)
Algeria ..	12,257	10.7	(a)	(a)	(a)
Austria ..	12,116	37.4	15.7	12.6	71.7
Dutch East Indies ..	11,737	23.1	(a)	(a)	(a)
Bulgaria ..	11,469	28.8	23.0	58.8	18.2
Greece ..	9,291	18.5	69.3	10.3	20.4
Latvia ..	6,406	25.2	83.6	1.8	14.6
Great Britain ..	4,745	5.4	10.4	1.3	88.3

(a) Not available.

(b) Estimate of forest area possible for permanent reservation.

3. **Requisite Proportion of Forest Area.**—It is generally held that when the forest area in any country falls below 0.86 acres per head of population, that country will be obliged to import timber. Australia possesses 2.8 acres of forest per head of population and normally the excess of imports of timber over exports amounts to approximately 28,000,000 cubic feet. There are two reasons for the excess. In the first place, the area of 19,500,000 acres given as the wooded area comprises all forest lands, reproductive or otherwise. The bulk of this area consists of cut-over forests swept by fire at frequent intervals, and the area of really productive forests has not been ascertained. Secondly, Australia does not possess a sufficient supply of softwoods, and must, therefore—with the exception of a small quantity produced in Queensland, New South Wales and South Australia—import the bulk of its requirements from overseas. Provided that the area of 19,500,000 acres considered possible of permanent reservation by foresters was yielding under silvicultural treatment its maximum of hard and soft woods, the timber supply of Australia would be sufficient for a population of 22½ millions.

§ 2. Forestry Activities of the Commonwealth Government.

Forestry was not included amongst the matters transferred from the States to the control of the Commonwealth, and federal supervision, therefore, is restricted to the forests in the Australian Territories. These territories (including Papua, New Guinea

and Norfolk Island) cover a large area, and, with the exception of the Northern Territory, are capable of sound forestry development. It is only within comparatively recent years, however, that any attempt has been made to take stock of the forestry position. The Commonwealth Forestry Bureau was instituted in 1925 to initiate sylvicultural and other forest research work and to provide for the education and training of the professional staffs required by the Commonwealth and the State services. The Bureau received statutory powers under an Act passed in 1930. In the meantime, the Australian Forestry School was established in 1926, and not only was the training of the State forest officers begun, but a nucleus of qualified officers was sent abroad to undergo special courses of instruction with the object of staffing the research side of the Bureau. The financial situation in 1930 and following years delayed progress on the research side, and the Australian Forestry School was the Bureau's main activity. Since then, however, the research work of the Bureau has been developed, and stations have been established in South Australia and Tasmania on a co-operative basis with the State Forestry services.

The forest resources of the Territories of Papua, New Guinea, Norfolk Island and the Australian Capital have been investigated, and reports in connexion with these have been published. In the case of the Australian Capital area an active forest policy is being developed.

During the 1939-45 War it was found necessary to institute control of timber supplies. Upon the cessation of hostilities this control was, in its final stages, passed to the Bureau to continue such of these activities as were considered advantageous. An Act was passed reconstituting the Bureau as the Forestry and Timber Bureau under a Director-General and adding to its powers and functions those of advising Governments with regard to the supply, production and distribution of timber in Australia and its importation into and exportation from Australia.

The investigation of the dead product of the forests is entrusted to the Council for Scientific and Industrial Research, which has established a Forest Products Division. Research work is being carried out by this institution in regard to various matters, e.g., paper pulp, seasoning, preservation, tan barks, the chemistry of woods, and the utilization of forest products generally, including the substitution of local for imported woods for such purposes as wood pulp, butter boxes and fruit cases.

§ 3. State Forestry Departments.

1. **Functions.**—With the exception of Queensland, the powers and functions of State forest authorities are laid down under Forestry Acts and Regulations. In each State there is a Department or Commission to control forestry work. The functions of these administrations are as follows:—(a) The securing of an adequate reservation of forest lands; (b) the introduction of proper measures for scientific control and management of forest lands; (c) the protection of forests; (d) the conversion, marketing and economic utilization of forest produce; and (e) the establishment and maintenance of coniferous forests to remedy existing deficiency in softwoods.

Annual reports are issued by each State forest authority.

In Victoria a forestry school has been established at which recruits are trained for the forestry service of the State.

2. **Forest Reservations.**—At the Interstate Forestry Conference held at Hobart in 1920, the State forestry authorities agreed in regard to the necessity of reserving an area of 24,500,000 acres of indigenous forest lands in order to meet the future requirements of Australia but, as previously mentioned, it is the considered opinion of qualified foresters that 19.5 million acres only are possible of permanent reservation. The area distributed among the States is set out in § 1, 2 *ante*.

Having been endorsed by the Premiers' Conference held later in the same year, this area was adopted as the Australian forest requirement towards the permanent reservation of which the authorities are now aiming. The progress made in the various States to the end of June, 1944, is shown in the following table :—

AREA OF FOREST RESERVATIONS, 30th JUNE, 1944.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Dedicated State forests ...	5,204,315	4,904,364	3,284,015	(a) 268,804	3,393,031	1,790,559	18,845,088
Timber and fuel reserves ..	1,296,086	(b)	3,109,514	..	2,138,578	(c) 355,680	46,899,858
Total ..	6,500,401	4,904,364	6,393,529	268,804	5,531,609	2,146,239	25,744,946

(a) Includes Timber and Fuel Reserves. (b) Not available. (c) Excludes Fuel Reserves.
(d) Incomplete.

In addition to the work of permanently reserving their respective areas the State foresters are endeavouring to survey all timbered lands with a view to the elimination of those unsuitable for forestry. Considerable areas have been revoked in certain States, while dedications of new areas have resulted in gains to the permanent forest estate.

The area of State forests reserved in perpetuity amounted in June, 1944, to 18,845,088 acres, or 97 per cent. of the area considered possible of permanent reservation in Australia. Of this area a considerable proportion consists of inaccessible mountainous country and cut-over lands, while the Australian area recommended refers to merchantable forest only. The foresters of Australia are, therefore, faced with a difficult task in improving and preserving the existing forests, and in securing the reservation of further suitable forest country to ensure a permanent supply.

The Forestry Departments also control 6,899,858 acres of temporary timber and fuel reserves, but, while these areas contain some land of high value for forestry purposes, the greater part does not justify permanent reservation.

3. Sylvicultural Nurseries and Plantations.—Recognition of the necessity for providing by systematic sylviculture for the future softwood timber needs has led to the creation in all of the States of a number of nurseries and plantations. A brief statement showing the locality of these establishments and the nature of their activities will be found in previous issues of the Official Year Book. (See Official Year Book No. 6, pp. 451-3.) Details regarding forest plantations and the number of persons employed are shown as follows :—

FORESTRY : AREAS AND EMPLOYMENT, 1943-44.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Total area of indigenous forest improved or regenerated acres	1,420,354	1,049,867	429,470	9,928	526,756	2,601	3,438,975
Total area of effective plantations—							
Hardwoods .. acres	382	2,500	2,713	3,419	(a) 16,695	375	26,084
Softwoods ..	40,043	46,418	29,895	98,929	13,592	1,732	230,609
Number of persons employed in Forestry Departments—							
Office staff .. No.	239	91	87	47	41	38	543
Field staff ..	103	197	478	441 (b)	438	69	1,726

(a) Mallet—mainly for bark tanning.
Allied Works Council.

(b) Includes 132 casual hands and 173 aliens under

4. Revenue and Expenditure.—The revenue and expenditure of State Forestry Departments for the years 1938-39 and 1940-41 to 1943-44 are given below :—

STATE FORESTRY DEPARTMENTS : REVENUE AND EXPENDITURE.

State.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
REVENUE.					
	£	£	£	£	£
New South Wales ..	224,266	306,809	393,202	467,942	530,820
Victoria ..	198,157	325,500	421,086	630,018	838,729
Queensland..	764,557	955,915	959,220	927,982	1,094,325
South Australia ..	101,312	170,323	240,442	291,403	319,300
Western Australia ..	145,724	161,253	158,692	190,238	227,350
Tasmania ..	32,765	36,087	40,942	50,418	48,524
Total ..	1,466,781	1,955,887	2,213,584	2,558,001	3,059,048
EXPENDITURE.					
	£	£	£	£	£
New South Wales ..	250,355	229,009	528,393	517,621	598,969
Victoria(a) ..	406,175	615,165	741,928	1,088,020	1,306,750
Queensland..	764,545	816,918	814,724	691,691	845,572
South Australia ..	182,633	228,244	261,089	238,791	308,372
Western Australia(b)..	164,943	153,688	128,993	176,857	262,000
Tasmania ..	71,437	68,775	71,679	60,263	59,062
Total ..	1,840,088	2,111,799	2,546,806	2,773,243	3,380,725

(a) Includes expenditure from Relief Works, 1938-39, £167,611; 1940-41, £49,798; 1941-42, £5,136; 1942-43, £72. (b) Includes expenditure from General Loan and Trust Funds, 1938-39, £136,254; 1940-41, £124,542; 1941-42, £100,537; 1942-43, £98,908; 1943-44, £124,894.

In South Australia, with fewer forestry resources than the other States, a progressive policy of afforestation has been followed over the past 66 years and extensive areas planted with softwoods. In 1942-43 the revenue from forests in this State for the first time exceeded expenditure.

§ 4. The Australian Forestry School.

The Australian Forestry School situated at Canberra in the Australian Capital Territory was established in 1926 by the Commonwealth Government to meet the demand of the States for an institution which would give a professional training at least equal to that afforded by the recognized forestry schools abroad.

Under the Forestry Bureau Act 1944, which came into operation on 3rd May, 1944, a Board of Higher Forestry Education has been established to maintain the standard of the diploma course at the school and to advise as to pre-requisite university courses.

Under existing arrangements the head of the State forestry service may nominate candidates for enrolment at the school. According to the system in vogue in each State, the nomination may be made either at school-leaving age or after the candidate has successfully completed the specified university course. In the first case, the youth is helped throughout his university career and is given employment in practical work during the long vacations to test his suitability as a forestry officer; in the second case he is chosen later, and the practical tests are not made until the long vacation immediately preceding his entry to the school. The Commonwealth Government also awards to selected students ten scholarships each year of the value of £150 per year for the four years of academic study required. The possession of a nomination by a State Government Service or the receipt of a Commonwealth Government scholarship is not, however, essential to enrolment, since any candidate possessing the necessary qualifications will be accepted for the diploma course, and in special cases applicants desirous of studying a particular branch of forestry will be required to follow certain lectures only. Refresher or post-graduate courses are arranged to meet the needs of senior foresters.

A candidate for enrolment in the diploma course must possess—(a) a degree of a university; or (b) a certificate that he has completed the special two years' preliminary course at a university.

The qualifications for enrolment may be waived to assist an applicant of exceptional ability with a record of long service in a State Forestry Department, who has been specially recommended by the head of that service. Such applicants must show proof of education equal to that required for a school leaving certificate.

The course of instruction extends over three years, the first two of which are spent at the school, and the third in one of the forestry services of Australia.

The Commonwealth diploma of forestry is awarded to students on the following conditions:—(a) successful completion of theoretical course; (b) satisfactory field work during the course; and (c) one year's satisfactory practical forestry work following the school course.

Students who have passed the approved two-year preliminary science course at the Universities of Adelaide, Melbourne, Western Australia, Queensland or Sydney, and two years of Diploma course at the School, may be granted the degree B.Sc.F. by their Universities, subject to certain conditions laid down, particulars of which may be obtained from the Registrar of the University concerned.

§ 5. Forest Congresses.

References to the various Forestry Conferences held in Australia and elsewhere are given in Official Year Book No. 22, p. 743. The First British Empire Forestry Conference was held in London in 1920. Subsequent Conferences were held in Ottawa 1923, Australia 1928, and South Africa 1935, but the fifth Conference which was to have been held in India in 1940 was postponed because of the war. Publications issued in connexion with these Conferences are available on application to the various State and Commonwealth forestry authorities.

§ 6. Forestry Production.

1. **Timber.**—Particulars regarding logs treated and the production of rough sawn timber in forest sawmills in each State for the year 1943-44 are shown in the following table:—

OUTPUT OF NATIVE TIMBER : FOREST SAWMILLS, 1943-44.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Total.
LOGS TREATED, INCLUDING THOSE SAWN ON COMMISSION.							
	'000 sup. feet.	'000 sup. feet.	'000 sup. feet.	'000 sup. feet.	'000 sup. feet.	'000 sup. feet.	'000 sup. feet.
Hardwood ..	182,908	202,342	128,525	5,688	263,358	140,115	923,026
Softwood ..	76,566	19,742	142,262	39,455	3,920	3,956	285,901
Total ..	259,564	222,084	270,787	45,143	267,278	144,071	1,208,927

ROUGH SAWN TIMBER PRODUCED FROM LOGS ABOVE.

	'000 sup. feet.	'000 sup. feet.	'000 sup. feet.	'000 sup. feet.	'000 sup. feet.	'000 sup. feet.	'000 sup. feet.
Hardwood ..	115,392	110,994	80,108	3,157	106,461	74,957	491,069
Softwood ..	47,447	11,533	100,650	25,740	1,613	2,053	189,036
Total ..	162,839	122,527	180,758	28,897	108,074	77,010	680,105

The next table gives the sawn output of native timber in both forest and town sawmills and in joinery works, box and case factories and other woodworking establishments in each State for the years 1938-39 and 1940-41 to 1943-44.

SAWN OUTPUT OF NATIVE TIMBER : ALL MILLS.

State.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
	'000 sup. feet.	'000 sup. feet.	'000 sup. feet.	'000 sup. feet.	'000 sup. feet.
New South Wales ..	179,350	219,020	256,145	250,018	259,035
Victoria ..	120,197	174,018	194,374	182,045	176,464
Queensland ..	193,250	209,609	218,413	185,713	187,072
South Australia ..	14,537	23,019	30,007	35,194	35,684
Western Australia ..	125,453	115,219	119,731	109,377	109,987
Tasmania ..	84,228	84,749	95,005	93,381	81,888
Total ..	717,015	825,634	913,675	855,728	850,130

In addition to the sawn timber shown in the table, a large amount of other timber, e.g., sleepers, piles, poles, fencing material, timber used in mining, and fuel, is obtained from forest and other lands. Complete information in regard to the volume of this output is, however, not available. In Western Australia, particulars are obtained of the quantities of timber hewn by contractors for the Railway Department, mines, etc., as well as of the quantities produced by other agencies outside forest sawmills, but the figures have not been included in the preceding two tables. The quantities so produced in Western Australia in the five years shown in the preceding table were as follows:—1938–39, 35,862,540 sup. feet; 1940–41, 31,659,666 sup. feet; 1941–42, 26,295,114, sup. feet; 1942–43, 19,498,536 sup. feet; and 1943–44, 11,698,704 sup. feet. The annual reports of the Forest Departments of the States contain particulars concerning the output of timber from areas under departmental control, but owing to lack of uniformity in classification and measurement, accurate determination of total production cannot be made. Moreover, there is a moderate quantity of hewn timber produced from privately owned land, but information regarding output is not available.

2. **War-time Control of Timber.**—Because of its importance to the war effort of Australia, the supply of timber, immediately on the outbreak of war, came under the control of the Department of Munitions. With the increasing importance of timber as a raw material in the production of munitions and for defence construction, a Controller of Timber was appointed in April, 1941 to plan and co-ordinate the supply of timber. Under an order of 8th October, 1941 the Controller of Timber was given power to prohibit the cutting of timber, to determine the priority of orders, and to collect returns from persons dealing with timber. On 23rd March, 1942 these powers were extended by the National Security (Timber Control) Regulations to cover all phases in the production, treatment and use of timber. From time to time orders were issued restricting the use of certain timbers.

3. **Stocks of Logs and Sawn Timber.**—Particulars are given below of timber stocks held on 30th June, 1944, as reported by mills and other factories included in the wood-working group. These latter establishments include box and case factories and joinery works, etc.

STOCKS OF TIMBER REPORTED BY FACTORIES, 30th JUNE, 1944.

State.	Logs.			Sawn Timber.		
	Hardwood.	Softwood.	Total.	Hardwood.	Softwood.	Total.
	'000 sup. feet.	'000 sup. feet.	'000 sup. feet.	'000 sup. feet.	'000 sup. feet.	'000 sup. feet.
New South Wales	8,526	5,504	14,030	(a)	(a)	23,010
Victoria ..	8,765	1,381	10,146	29,464	7,170	36,634
Queensland(b) ..	4,984	2,523	7,507	2,015	5,298	7,313
South Australia	261	1,090	1,351	6,096	6,734	12,830
Western Australia	1,412	39	1,451	23,536	92	23,628
Tasmania ..	2,741	646	3,387	11,679	267	11,946
Total ..	26,689	11,183	37,872	(c) 72,790	(c) 19,561	115,361

(a) Not available.

(b) Incomplete.

(c) Excludes New South Wales.

4. **Paper and Wood Pulp.**—(i) *Tasmania.* During recent years the manufacture of paper from Australian-grown timber has been established in three States. In Tasmania two large mills are making paper from indigenous hardwoods. The first of these started production of paper at Burnie in August, 1938, from imported pulp, until the pulp mill, using local hardwood, came into operation a few months later. At this mill pulp is produced by the soda process and the caustic soda necessary for cooking the wood and chlorine for bleaching the pulp are produced by a separate plant located alongside the

mill. Two paper machines are operated. The larger machine has the capacity to produce paper 180 inches wide at 800 feet per minute, while the smaller machine is capable of producing paper 90 inches wide at about 400 feet per minute. The paper produced covers a wide range of high class printing, writing, drawing, duplicating and blotting papers. At Boyer on the Derwent River, near Hobart, production of newsprint commenced in February, 1941. The newsprint is manufactured from local ground wood pulp to which is added a small proportion of sulphite pulp imported from Canada. The paper-making machine installed is capable of making paper 161 inches wide at the rate of 1,200 feet per minute, and when running at full capacity can produce about 540 tons of newsprint per week. At both these mills logs are taken from the forests by means of tractors and transported to the mills by rail. Power is supplied by the Tasmanian Hydro-electric Commission and hardwood not suitable for pulping is used as fuel. During 1943-44 46,721 cords of pulp wood and 41,548 cords of firewood were delivered to these mills.

(ii) *Victoria*. In Victoria the production of wood pulp for papermaking commenced in January, 1937, with a pilot plant having the capacity of about 3,000 tons of air dried pulp per annum. In October, 1939 the main plant at Maryvale, with a capacity of 27,000 tons of pulp per annum, commenced operations. Associated with the pulp mill is a paper-making plant capable of producing about 20,000 tons of kraft paper per annum. The timber used at this mill consists mainly of hardwoods at present unsuitable for other purposes. In addition, a small quantity of pine, mainly thinnings, mill waste and special softwood for production of cellulose is used. Kraft wrapping papers are produced and during the war the production of cellulose for the manufacture of explosives was undertaken. During 1943-44 the wood taken from Crown Lands for the production of wood pulp and cellulose amounted to 2,445,630 cubic feet.

(iii) *South Australia*. In South Australia a pulp and paper board mill commenced operations during 1941-42 near Millicent. When completed and in full production the mill will use considerable quantities of softwoods from the Mount Burr and Penola pine plantations. During 1943-44 4,042,038 super. feet of softwoods from State forests were supplied to the mill. In addition, during 1943-44, 5,898,990 super. feet of pulp wood from the softwood plantations of South Australia were exported to Victoria for conversion into cellulose for the manufacture of explosives.

5. *Other Forest Products.*—(i) *Veneers, Plywood, Etc.* Cutting of timber for the manufacture of veneers, plywood, etc., has been carried out in most States for a number of years. Recently, however, this has been considerably extended in all States, and much greater use has been made of local-grown timbers, both hard and softwoods. In recent years special attention has been paid to the selection of logs suitable for peeling. In 1943-44 the quantity of plywood produced amounted to 94,619,126 square feet ($\frac{3}{16}$ " basis) and veneers to 45,566,093 square feet ($\frac{3}{16}$ " basis). Since the commencement of the war the peeling of logs for the production of match board and sticks has been carried out in both Victoria and South Australia. In South Australia specially selected logs from the plantations of exotic softwoods are used, while in Victoria use has been made of both plantation softwood and indigenous hardwoods.

(ii) *Charcoal*. With the availability of additional petrol supplies towards the end of the 1939-45 War, the production of charcoal, which previously had a wide use as a substitute fuel during the war years, was considerably reduced and is now little higher than normal.

(iii) *Eucalyptus Oil*. Oil may be distilled from the foliage of all varieties of eucalyptus, and several of them furnish a product widely known for its commercial and medicinal uses. Complete information regarding Australian production and consumption of eucalyptus oil is not available, but considerable quantities are manufactured, particularly in Victoria. Oversea exports amounted in 1938-39 to £86,714; in 1939-40 to £130,422; in 1940-41 to £184,175; in 1941-42 to £208,282;

in 1942-43 to £94,050; and in 1943-44 to £124,148. The bulk of the product is shipped from Victoria to the United Kingdom and the United States of America. Large quantities of the crude oil are used locally in flotation processes in connexion with the recovery of gold and other minerals.

(iv) *Sandalwood and Sandalwood Oil.* Most of the sandalwood is produced in Western Australia where considerable quantities are gathered each year for export to Eastern Countries. Small quantities are also produced in South Australia, Queensland and New South Wales. Details of exports of sandalwood are shown in paragraph 3 (ii) § 8. Oil distilled from Western Australian sandalwood has a medicinal value and is used extensively in the manufacture of perfumes. Quantities of this oil are exported annually to the Eastern States of Australia and overseas countries, principally the United Kingdom. Oversea exports of Australian sandalwood oil amounted in 1938-39 to £13,964; in 1939-40 to £22,485; in 1940-41 to £8,864; in 1941-42 to £22,187; in 1942-43 to £2,834; and in 1943-44 to £34.

(v) *Grass Tree or Yacca Gum.* South Australia is the chief State producing this gum which is used in the preparation of varnishes and lacquers. Quantities are also obtained in New South Wales and Western Australia but these are small. The production in South Australia during 1943-44 amounted to 934 tons, whilst the exports from Australia amounted to 672 tons valued at £11,140.

(vi) *Tan Barks.* The forests of Australia are capable of yielding a wealth of tanning materials; many species of eucalyptus and other genera contain varying proportions of tannin, chiefly in the bark, but also in the wood and twigs. Although many of these species contain higher percentages of tannin than are found in the barks of oak, chestnut and hemlock, formerly the chief source of tannin material in the northern hemisphere, scattered distribution has resulted in the richest tan-bearing species only being used in Australia. These are:—Golden wattle (*Acacia pycnantha*), black or green wattle (*Acacia decurrens* or *mollissima*), and mallet (*Eucalyptus astringens*).

Up to 1913 the production of wattle bark was more than sufficient for local requirements, and an export trade was built up. The supply diminished during the six years ended 1926-27, and Australia imported on the average about 2,900 tons each year from Natal, where the plantations were originally started from Australian seed. From 1927-28 to 1938-39 exports exceeded imports in every year except 1936-37, but since 1939-40 there has been a considerable excess of imports. The chief exporting States are Western Australia, South Australia and Tasmania. This matter is referred to in tables appearing in § 8 following. The other valuable tan bark, mallet (*Eucalyptus astringens*) of Western Australia, is not extensively used in Australian tanneries, but it is exported to Europe and other countries, where it is used for producing a tannin extract. A brief account of the work done by the Council for Scientific and Industrial Research in connexion with tanning materials is given in Official Year Book No. 22, p. 743. The production of extract from the bark of karri (*Eucalyptus diversicolor*), of which very large quantities are available at karri sawmills, has passed the experimental stage, and private enterprise has started production on a commercial scale. The experimental work in kino impregnated karri (*Eucalyptus calophylla*) bark is not yet complete. The production of tan bark in Australia approximated 25,000 tons per annum in the years prior to 1939, but declined to less than half that quantity during the war years 1939 to 1945.

6. Value of Production—Gross and Net.—(i) *General.* As the outcome of a series of conferences of Australian Statisticians it is now possible to present the value of forestry production on a more satisfactory basis than was possible hitherto, but the relative proportions of marketing costs to gross production suggest that complete uniformity in method has not yet been obtained. Provision is made for the inclusion of all phases of forestry output, including forest sawmills, the production of logs, poles, piles, sleepers and other hewn timber, firewood, sandalwood and gums and resins. All of these items are not yet collected in all the States, but the omissions are not serious.

GROSS, LOCAL AND NET VALUE OF FORESTRY PRODUCTION, 1943-44.

State.	Gross Production Valued at Principal Markets.	Marketing Costs.	Gross Production Valued at Place of Production.	Value of Other Materials Used in Process of Production.	Net Value of Production.(a)
	£	£	£	£	£
New South Wales ..	3,452,000	167,000	3,285,000	..	3,285,000
Victoria ..	2,602,467	307,920	2,294,547	342,269	1,952,278
Queensland ..	3,282,000	460,000	2,822,000	..	2,822,000
South Australia ..	1,102,783	74,112	1,028,671	..	1,028,671
Western Australia ..	1,574,929	201,894	1,373,035	699	1,372,336
Tasmania ..	816,520	52,510	764,010	..	764,010
Total ..	12,830,699	1,263,436	11,567,263	342,968	11,224,295

(a) No deduction has been made for depreciation and maintenance.

(ii) *States, 1934-35 to 1943-44.* In the following table the net value of forestry production and the net value per head of population are given by States for the years 1934-35 to 1943-44.

NET VALUE OF FORESTRY PRODUCTION.

Year.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Total.
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NET VALUE. (a)

	£	£	£	£	£	£	£
1934-35 ..	1,922,000	664,800	1,988,751	523,786	1,012,261	325,750	6,437,348
1935-36 ..	2,014,000	692,209	2,076,000	525,936	1,135,851	367,600	6,807,596
1936-37 ..	2,096,000	731,777	2,186,000	570,692	1,314,152	407,300	7,305,921
1937-38 ..	2,179,000	1,029,174	2,514,000	570,199	1,272,707	431,200	7,996,280
1938-39 ..	2,261,000	1,067,732	2,362,000	542,465	1,147,335	399,500	7,780,032
1939-40 ..	2,347,000	1,108,864	2,531,000	605,419	1,087,734	452,520	8,132,537
1940-41 ..	2,576,000	1,355,402	2,734,000	603,162	1,322,138	516,000	9,196,702
1941-42 ..	3,159,000	1,594,643	2,423,000	879,332	1,272,606	722,100	10,050,681
1942-43 ..	3,155,000	1,858,326	2,328,000	1,011,491	1,422,782	813,940	10,589,539
1943-44 ..	3,285,000	1,952,278	2,822,000	1,028,671	1,372,336	764,010	11,224,295

NET VALUE PER HEAD OF MEAN POPULATION.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1934-35 ..	0 14 7	0 7 3	2 1 5	0 17 11	2 5 8	1 8 5	0 19 3
1935-36 ..	0 15 2	0 7 6	2 2 8	0 17 11	2 10 9	1 11 7	1 0 2
1936-37 ..	0 15 8	0 7 11	2 4 5	0 19 5	2 18 2	1 13 1	1 1 5
1937-38 ..	0 16 1	0 11 1	2 10 6	0 19 4	2 15 8	1 16 8	1 3 4
1938-39 ..	0 16 7	0 11 5	2 6 11	0 18 3	2 9 7	1 13 9	1 2 6
1939-40 ..	0 17 0	0 11 9	2 9 10	1 0 3	2 6 5	1 17 10	1 3 3
1940-41 ..	0 18 6	0 14 1	2 13 0	1 3 1	2 15 11	2 3 0	1 6 1
1941-42 ..	1 2 7	0 16 4	2 6 8	1 9 0	2 14 4	3 0 2	1 8 2
1942-43 ..	1 2 3	0 18 11	2 4 8	1 13 0	2 19 3	3 7 5	1 9 5
1943-44 ..	1 3 1	0 19 7	2 13 4	1 13 3	2 16 11	3 2 7	1 10 10

(a) No deduction has been made for depreciation and maintenance.

7. *Employment.*—(i) *Occupation Survey.* The number of persons employed in forestry operations, as revealed by the Occupation Survey of 1st June, 1945, is shown in the following table. Those engaged in the sawmilling industry are excluded.

EMPLOYMENT IN FORESTRY, 1st JUNE, 1945.
(Excluding Sawmilling Industry.)

Sex.	N.S.W. (a)	Victoria.	Q'land.	S. Aust. (b)	W. Aust.	Tasmania.	Total.
	No.	No.	No.	No.	No.	No.	No.
Males ..	6,164	5,132	3,647	1,050	1,243	1,365	18,601
Females ..	22	11	3	15	12	10	73
Total ..	6,186	5,143	3,650	1,065	1,255	1,375	18,674

(a) Includes Australian Capital Territory.

(b) Includes Northern Territory.

(ii) *Logging Operations : Forest Sawmills.* Particulars of employment and costs of logging operations in the forests are given for each State in the following table. These data have been compiled from the details furnished by those establishments which are defined as forest sawmills as distinct from those defined as town sawmills.

FOREST SAWMILLS : LOGGING OPERATIONS, 1943-44.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
Number of men employed							
Value of wages paid	No.	828	416	73	759	672	
Other Costs	£	214,654	75,410	23,003	242,654	124,959	
Value of Royalties, etc., paid	£	187,513	134,429	61,951	129,000	128,538	
Period worked by men above	.. months	165,538	118,828	112,805	129,760	37,317	
		(a)	9.08	9.60	11.59	9.21	(a)

(a) Not available.

(iii) *Mill Workers : Forest Sawmills.* Details of the number employed in the milling operations of these forest sawmills are given in the next table. Further details regarding the operations of these mills are given in Chapter XXV. "Manufacturing Industry".

FOREST SAWMILLS : MILL WORKERS, 1943-44.

Sex.	N.S.W.	Victoria.	Q'land. (a)	S. Aust.	W. Aust.	Tasmania.	Total.
	No.	No.	No.	No.	No.	No.	No.
Males ..	2,821	1,903	4,617	501	1,800	1,328	12,970
Females ..	95	30	188	45	21	20	399
Total ..	2,916	1,933	4,805	546	1,821	1,348	13,369

(a) Includes town sawmills.

§ 7. Commercial Uses of Principal Australian Timbers.

1. *General.*—The uses of the more important Australian timbers are many and varied, and are indicated in previous issues of the Official Year Book.

A list of Australian timbers best known on the local markets appeared in Official Year Book No. 20, p. 713. [Further references are made in "Timber and Forest Products of Queensland" (E. H. F. Swain), published in 1928.]

2. *Lack of Uniformity in Nomenclature.*—Unfortunately the vernacular names applied to the gums, ironbarks, etc., in the various States, and even in different parts of the same State, do not always refer to identical timbers. The resulting confusion has not only been productive of loss, but it has, to some extent, prejudicially affected

the timber trade. This subject is referred to at some length in the special article "Australian Eucalyptus Timbers" in Section III., §§ 7 and 8 of Official Year Book No. 10. At the Forestry Conferences previously mentioned, the matter came up for special consideration, and steps were taken to establish a uniform nomenclature.

§ 8. Oversea Trade.

1. Imports.—(i) *Dressed Timber*. The quantities and values of timber imported into Australia during the years 1938-39 and 1941-42 to 1943-44 inclusive are shown in the following table according to countries of origin:—

DRESSED TIMBER : IMPORTS INTO AUSTRALIA.

Country of Origin.	Quantity.				Australian Currency Values.			
	1938-39.	1941-42.	1942-43.	1943-44.	1938-39.	1941-42.	1942-43.	1943-44.
	'000 sup. ft.	'000 sup. ft.	'000 sup. ft.	'000 sup. ft.	£A.	£A.	£A.	£A.
United Kingdom ..	1	..	..	..	48	..	..	..
Canada ..	8,927	2,591	1,752	34	99,797	41,458	38,378	23,745
New Zealand ..	..	390	..	..	..	12,840	..	..
Other British Countries	3	40	2	16	23	1,063	23	165
Norway ..	4,209	..	..	..	47,570	..	..	..
Sweden ..	1,978	..	..	..	26,687	..	..	..
U.S. of America ..	2,242	..	118	..	24,203	..	286	..
Other Foreign Countries	418	..	..	..	5,771	..	..	..
Total ..	17,778	3,021	1,872	50	205,099	55,361	38,687	23,910

The figures in the table above exclude items such as architraves, veneers, plywood, staves, etc., quantities for which are either not shown, or are expressed in dissimilar units in the Customs entries. The total value of the items so excluded amounted to £A.35,988 in 1943-44.

Prior to the 1939-45 War the bulk of the imports of dressed timber came from Canada, Norway, Sweden and the United States of America; but after the outbreak of the war increased quantities were imported from New Zealand. Practically the whole of this timber consisted of softwoods—deal and pine—used for lining, weatherboards, flooring, shelving, doors, box-making, etc.

(ii) *Undressed Timber*. Australian imports of undressed timber for the years 1938-39 and 1941-42 to 1943-44 are given hereunder:—

UNDRESSED TIMBER, (a) : IMPORTS INTO AUSTRALIA.

Country of Origin.	Quantity.				Australian Currency Values.			
	1938-39.	1941-42.	1942-43.	1943-44.	1938-39.	1941-42.	1942-43.	1943-44.
	'000 sup. ft.	'000 sup. ft.	'000 sup. ft.	'000 sup. ft.	£A.	£A.	£A.	£A.
United Kingdom ..	115	85	..	..	10,969	3,171	..	..
Canada ..	296,948	35,068	21,024	39,431	1,225,050	292,513	249,399	472,744
Malaya (British) ..	165	40	..	..	1,389	540	..	..
New Zealand ..	11,193	10,632	..	..	173,556	160,287	..	..
Other British Countries	10,840	6,680	6,448	2,626	75,136	53,266	100,804	43,727
Japan ..	374	..	49	8	8,439	..	2,647	372
Netherlands East Indies ..	20	..	..	..	130	..	..	..
New Caledonia ..	1,671	94	..	2	6,368	686	..	10
Philippine Islands ..	6,879	2,365	..	..	72,921	27,629	..	..
Sweden ..	4,654	..	..	..	40,592	..	..	..
United States of America ..	12,245	1,454	1,832	2,353	210,092	34,255	45,953	60,174
Other Foreign Countries ..	2,994	4,282	722	318	29,694	28,447	9,744	11,926
Total ..	348,098	60,700	30,075	44,738	1,854,936	601,788	408,547	588,953

(a) Excludes timber not measured in super. feet.

By far the larger proportion of the undressed timber imports consists of softwoods such as oregon, redwood, hemlock, western red cedar and yellow pine from Canada and the United States of America; and kauri, rimu and white pine from New Zealand. Amongst the hardwoods imported the principal are oak from the United States of America, and furniture woods from the Pacific Islands.

2. Exports.—(i) *Undressed Timber (excluding Railway Sleepers)*. The quantity and value of undressed timber, exclusive of railway sleepers, exported during the years 1938-39 and 1941-42 to 1943-44 are given below, together with the countries of destination.

UNDRESSED TIMBER (EXCLUDING RAILWAY SLEEPERS) (a): EXPORTS FROM AUSTRALIA.

Country to which Exported.	Quantity.				Value.			
	1938-39.	1941-42.	1942-43.	1943-44.	1938-39.	1941-42.	1942-43.	1943-44.
	'000 sup. ft.	'000 sup. ft.	'000 sup. ft.	'000 sup. ft.	£A.	£A.	£A.	£A.
United Kingdom ..	11,750	1,650	163	24	137,927	19,971	2,033	1,065
Canada ..	223	355	612	488	4,723	8,869	17,134	13,333
Ceylon ..	535	..	..	..	5,563	..	..	..
Hong Kong ..	98	21	..	..	1,058	502	..	..
Mauritius ..	354	60	..	..	4,520	603	..	..
New Zealand ..	17,145	7,716	7,081	5,751	245,194	148,270	170,949	152,891
Pacific Islands—								
Fiji ..	838	329	216	213	15,570	7,425	6,234	5,796
Gilbert and Ellice Islands								
Colony ..	63	14	1	..	1,076	350	16	..
Papua ..	219	589	61	57	3,458	16,487	1,601	2,514
Solomon Islands ..	143	48	..	..	2,279	904	..	..
Territory of New Guinea	131	24	..	..	1,970	307	..	..
Other Islands ..	243	7	42	38	5,118	164	950	989
Union of South Africa ..	7,164	2,073	871	223	80,668	26,994	15,893	4,233
Other British Countries ..	108	1,079	139	86	1,299	18,470	1,292	2,340
Africa, Portuguese East ..	415	..	..	..	5,023	..	..	..
Belgium ..	1,286	..	..	..	19,347	..	..	..
China ..	271	..	..	..	2,322	..	..	..
Egypt ..	718	2,573	..	..	7,186	36,041	..	..
Germany ..	648	..	..	..	9,989	..	..	..
Netherlands ..	234	..	..	..	2,875	..	..	..
Pacific Islands—								
New Caledonia ..	73	19	..	5	1,330	479	..	109
New Hebrides ..	49	16	..	23	819	714	..	847
Other Islands ..	21	38	76	182	537	1,391	1,729	6,091
United States of America ..	867	476	51	..	26,506	13,119	1,677	..
Other Foreign Countries ..	201	1,784	2,167	..	2,389	19,340	47,238	..
Australian Produce ..	43,797	18,871	11,480	7,065	588,746	320,400	266,746	189,216
Other Produce ..	541	582	..	25	6,079	11,842	..	992
Total ..	44,338	19,453	11,480	7,090	594,825	332,242	266,746	190,208

(a) Excludes Timber not measured in super. feet.

The bulk of the exports of undressed timber were consigned to New Zealand, the United Kingdom, South Africa and the United States of America, and consisted largely of the Western Australian hardwoods, jarrah and karri, which have earned an excellent reputation for such purposes as harbour works and wood paving, etc. Considerable quantities of pole, pile and girder timber are also exported from New South Wales to New Zealand.

(ii) *Railway Sleepers.* Particulars of the quantities and values of railway sleepers exported which are excluded from the previous table relating to undressed timber are shown below.

RAILWAY SLEEPERS : EXPORTS FROM AUSTRALIA.

Country to which Exported.	Quantity.				Value. ^a			
	1938-39.	1941-42.	1942-43.	1943-44.	1938-39.	1941-42.	1942-43.	1943-44.
	'000 sup. ft.	'000 sup. ft.	'000 sup. ft.	'000 sup. ft.	£A.	£A.	£A.	£A.
United Kingdom ..	1,438	..	..	..	14,467	..	..	..
Ceylon ..	5,334	..	..	..	53,339	..	..	..
Hong Kong ..	..	27	..	..	..	497	..	..
Mauritius ..	563	212	..	..	6,216	2,120	..	..
New Zealand ..	16,896	7,486	4,374	3,831	165,303	115,167	71,341	60,101
Pacific Islands (British) ..	201	216	168	166	2,341	2,664	2,498	2,495
Union of South Africa ..	4,941	6,477	626	1,086	49,412	69,048	10,322	17,852
Other British Countries ..	..	1,941	2,105	..	..	26,964	34,725	..
Egypt ..	4,198	7,204	..	..	41,986	77,371	..	..
Iran (Persia) ..	..	271	..	..	..	2,707	..	..
Iraq ..	165	7,957	1,933	..	1,696	85,783	32,111	..
Other Foreign Countries ..	29	..	100	..	291	..	1,397	..
Total ..	34,036	31,520	9,306	5,083	337,758	379,614	152,394	80,448
Number of Sleepers '000	1,268	1,186	367	214	..	..	..	..

3. Classification of Imports and Exports.—(i) *General.* The quantities of timber, according to items, imported and exported during the year 1943-44 are given in the following table :—

TIMBER : ITEMS IMPORTED AND EXPORTED FROM AUSTRALIA,
QUANTITIES, 1943-44.

Description.	Unit of Quantity.	Imports.	Exports.	Excess of Imports over Exports.
Dressed	Sup. ft.	49,708	27,636	22,072
Undressed—				
Railway Sleepers .. ..	..	(a)	5,083,809	} 32,564,616
Other .. ..	..	44,738,329	7,089,904	
Architraves, mouldings, etc. ..	Lin. ft.	..	7,981	7,981
Plywood, veneered or otherwise ..	Sq. ft.	43,835	2,280	41,555
Palings .. ..	..	..	..	..
Shingles .. ..	..	..	..	..
Staves—				
Dressed, etc. .. ..	..	75,771	..	75,771
Undressed .. ..	..	142,208	200	142,008
Laths .. ..	..	..	(b)	..
Wood pulp	Ton	(c) 32,883	(a)	..
Veneers	Sq. ft.	900	608,956	608,056
Spokes, rims, felloes, etc. ..	No.	..	(b)	(b)

(a) Not recorded separately.

(b) Quantity not available.

(c) Wood pulp—chemical.

NOTE.—The minus sign (—) denotes an excess of exports.

Similar particulars relative to the values of imports and exports during the year 1943-44 are shown hereunder:—

**TIMBER : ITEMS IMPORTED AND EXPORTED FROM AUSTRALIA
VALUES, 1943-44.**

Description.	Imports.	Exports.	Excess of Imports over Exports.
	£A.	£A.	£A.
Dressed	45,578	1,016	44,562
Undressed—			
Railway Sleepers	(a)	80,448	} 318,297
Other	588,953	190,208	
Architraves, mouldings, etc. .. .. .	..	69	69
Plywood, veneered or otherwise	3,175	30	3,145
Palings .. .. .	..	..	..
Shingles .. .. .	..	..	..
Staves—			
Dressed, etc.	7,167	..	7,167
Undressed	6,516	16	6,500
Laths .. .. .	..	248	248
Doors	20	471	451
Wood pulp	(b) 816,006	(a)	..
Veneers	6	8,689	8,683
Spokes, rims, felloes, etc. .. .. .	..	853	853
Other.. .. .	4,019	..	4,019
Total	1,471,440	(c) 282,048	(c) 1,189,392

(a) Not recorded separately.
included.

(b) Wood pulp—chemical.

(c) Exports of wood pulp not

NOTE.—The minus sign (—) denotes an excess of exports.

(ii) *Sandalwood.* Prior to the entry of Japan into the war in December, 1941, a considerable quantity of sandalwood was exported, principally from Western Australia, to Hong Kong and China, where it is highly prized and largely used for artistic and ceremonial purposes. Particulars for the four years 1940-41 to 1943-44 are compared with 1938-39 in the following table:—

SANDALWOOD : EXPORTS FROM AUSTRALIA.

Country to which Exported.	Quantity.					Value.				
	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
	Tons.	Tons.	Tons.	Tons.	Tons.	£A.	£A.	£A.	£A.	£A.
Hong Kong	806	474	522	..	..	18,709	16,732	18,642	..	..
India	25	25	..	..	..	842	1,125	..	..	..
Malaya (British)	97	396	42	..	..	3,149	14,015	1,949	..	..
Other British Countries	17	11	25	2	..	545	495	1,104	80	..
China	686	784	171	..	..	18,511	28,936	1,577	..	..
Other Foreign Countries	17	8	..	..	..	574	360	..	..	..
Total	1,648	1,698	760	2	..	42,330	61,683	23,272	80	..

(iii) *Tan Bark*. Tan bark figures both as an export and an import in the Australian trade returns. The following table refers to exports for the four years ended 1941-42. No exports were recorded for the years 1942-43 and 1943-44.

TAN BARK : EXPORTS FROM AUSTRALIA.

Country to which Exported.	Quantity.				Value.			
	1938-39.	1939-40.	1940-41.	1941-42. (a)	1938-39.	1939-40.	1940-41.	1941-42. (a)
	Cwt.	Cwt.	Cwt.	Cwt.	£A.	£A.	£A.	£A.
United Kingdom .. ..	..	..	..	..	..	..	..	..
New Zealand	7,620	3,145	618	421	3,897	1,884	318	236
Other British Countries ..	40	..	18	..	27	..	20	..
Germany	8,251	..	..	..	3,582	..	..	..
Other Foreign Countries ..	2,309	740	..	..	1,124	460	..	..
Total	18,220	3,885	636	421	8,630	2,344	338	236

(a) There were no exports for the years 1942-43 and 1943-44.

For a number of years prior to 1927-28 Australia had to import large quantities of tanning bark, but thereafter imports dropped to negligible quantities and exports rose annually to 89,061 cwt. in 1931-32. Since 1931-32 there has been a diminution of exports and by 1941-42 these had reached the low level of 421 cwt. The quantity imported did not rise appreciably until 1939-40 when imports were more than three times that of the previous year. Since that year there has been a considerable excess of imports. The Union of South Africa is the chief source of supply.

A comparison of the imports and exports of tan bark during the five years ended 1943-44 is given in the following table:—

TAN BARK : IMPORTS AND EXPORTS, AUSTRALIA.

Particulars.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.
QUANTITIES—	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
Imports	21,981	14,063	50,370	78,427	105,315
Exports	3,885	636	421	..	..
Excess of imports over exports	18,096	13,427	49,949	78,427	105,315
VALUES—	£A.	£A.	£A.	£A.	£A.
Imports	10,141	7,737	26,328	43,873	67,075
Exports	2,344	338	236	..	..
Excess of imports over exports	7,797	7,399	26,092	43,873	67,075

The imports consist almost exclusively of wattle bark from the plantations in South Africa. One species of Australian wattle, *Acacia mollissima*, is chiefly relied upon for the production of wattle bark in the South African plantations. Seed has been tried from New South Wales, Tasmania and Victoria, but it is stated that most of the seed is obtained from the best wattle bark areas in eastern Tasmania and western Victoria.

Two reasons are given to account for the success of the industry in the Union of South Africa:—(a) It is found that the treeless, grassy highlands of Natal are specially suitable for wattle culture, and the trees can therefore be grown in rows and economically attended to, while the necessary bark sheds and other appurtenances can be placed in the most advantageous positions; and (b) there is an abundance of cheap and efficient native labour.

(iv) *Other Tanning Substances*. Considerable quantities of tanning substances other than bark are imported annually into Australia. The total value in Australian currency of the importations in 1943-44 was £257,570, and was composed as follows:—Tanners' Bates, £2,893; wattle bark extract, £213,724; quebracho extract, nil; other extract, £25,783; and valonia, myrobalans, cutch, etc., £15,170.

Exports of tanning extracts from Australia amounted to £31,744 in 1943-44.

CHAPTER XXIII.

FISHERIES.

§ 1. General.

1. **Fish Stocks.**—Australia possesses a varied native fauna of freshwater and marine fish, including tropical and temperate species. In addition, certain exotic species have become acclimatized in the freshwater streams. The commercial fisheries exploit on-shore, demersal (bottom) and pelagic (surface) stocks. The on-shore stocks are at present of greatest importance.

The Australian marine fauna includes also a number of mollusca (oysters, scallops) and crustacea (crabs, prawns, crayfish) groups which are commercially exploited.

At certain times of the year whales of various species appear off our coasts.

2. **Fishing Areas.**—The principal fishing areas at present are the coastal lakes, streams, estuaries and beaches, from Cairns in Queensland to Ceduna in South Australia, and from Esperance to Geraldton in Western Australia. There are interruptions of variable size; for the most part, these fishing grounds are associated with the coastal streams. The demersal grounds fall into two classes—(a) the reefs from which cod and other tropical species are taken in tropical waters, and snapper in temperate waters; and (b) the grounds from which flathead, morwong, etc., are taken. The reefs extend intermittently from northern Queensland around the southern part of the continent to Shark's Bay in Western Australia. The flathead grounds lie on the continental shelf off south-east Australia, chiefly from off Crowdy Head to south of Cape Everard and further off the east Tasmanian coast off Babel Island southwards to Storm Bay. Other demersal grounds are known to exist in the Great Australian Bight but as yet are not exploited. The demersal shark grounds lie principally in Bass Strait and on the continental shelf off eastern South Australia. Other grounds have been located off southern Western Australia.

The grounds of existing pelagic fisheries include that for the spanish mackerel off the north-eastern coast from about Coff's Harbour to Cairns and that for barracouta in Bass Strait and off eastern Tasmania. Horse-mackerel is found in the eastern Tasmanian waters. Concentrations of other pelagic groups, including tuna and clupeoid species, are reported over the continental shelf at various points.

The pearl oyster inhabits the northern and western coastal waters from Cape York to Shark Bay. Edible oysters are found in the temperate waters of Queensland, New South Wales and Victoria. Some cropping of natural resources takes place in Queensland but the principal cultivation grounds are found in New South Wales. The scallop is found commercially only in Tasmanian waters.

Crabs of various species are found in practically all coastal waters. Prawns are taken in the temperate waters of Queensland and New South Wales. Crayfish are taken on reefs of the continental shelf in the waters of all southern States, the fishery extending (with a major interruption in the Bight) from Port Macquarie in New South Wales to Geraldton in Western Australia.

The whale appearances occur off the south of the continent, extending as far north as Southern Queensland in the east and to beyond Shark's Bay in the west.

3. **Fishing Boats and Equipment.**—The fishing equipment includes almost every possible type of gear, and appropriate boats are employed. The on-shore equipment includes mesh-nets, trawl-nets, and traps of various types. The demersal reef-fishery

is worked with traps, hand lines and other long lines. The demersal flathead-fishery is worked by both otter trawl (with V.-D. gear) and Danish seine; in addition some hand-lining is carried out. The demersal shark fishery is worked by long lines. The pelagic mackerel-fishery employs trolling gear with lures of various types; while the pelagic barracouta fishery employs principally barbless jigs; the use of nets, chiefly of pursing kind, for pelagic fisheries is only now being tested.

The boats for the on-shore fisheries are almost universally small vessels fitted with low power petrol engines. The vessels working the reefs are larger (up to 50 feet) and have more power. The otter trawl vessels are steam trawlers, while the Danish seine vessels are 40 to 70 feet in length with diesel engines. The shark boats have diesel power and range from 35 to 50 feet in length.

1. Administration.—The fisheries at present are administered by State Departments implementing State laws. This administration includes licensing of men and boats, and restriction on fishing, by prohibitions against fishing at certain times and places and by certain methods. In some States the quantity, type and construction of gear is subject to limitations and legal minimum sizes are prescribed.

In June, 1943 the fisheries were the subject of overall control by the Controller of Fisheries in the Department of War Organization of Industry but were subsequently transferred to the Ministry of Post-war Reconstruction.

Special legislation exists for the pearl-shell and bêche-de-mer fisheries and for whaling.

§ 2. Development and Present Condition of the Fishery.

1. Fisheries Proper.—(i) *General*. The earliest Australian fishery was on-shore. This was soon added the demersal reef fishery using lines. At each centre of population this sequence has almost invariably been followed, and expansion of the industry up to about the year 1900 consisted chiefly of the extension of these operations into northern coastal areas. The taking of barracouta in Tasmanian waters was begun at about 1880, if not earlier, but the main development of this fishery occurred between 1915 and 1925.

The first major development of the fishery came with the institution of trawling operations off the New South Wales coast in 1918 by the New South Wales Government as a consequence of the results obtained from the exploratory work of the Federal Investigating ship *Endeavour*. The State enterprise failed, but the fishery was found very profitable for private enterprise, which had as many as sixteen steam trawlers operating at the time. In 1930 the use of Danish seine vessels began and the fleet of these vessels rapidly expanded, being given an exceptional opportunity by the requisitioning of trawling vessels by the Navy. Subsequently, practically all the Danish seine vessels were overfished. There are strong signs that the stocks here were overfished and that the upper limit of economic production is about 14 million lb.

In 1926 Queensland fishermen turned their attention to spanish mackerel, and this fishery rapidly developed, with Townsville as principal centre. Production in 1943 was 1,000,000 lb. of 1 million lb.

At about the same time (1935) a fishery for snapper shark in southern waters began to expand. This fishery rapidly extended its area of operations and the catch increased from 200,000 lb. in 1935 to 1,250,000 lb. in 1943-44. Greater impetus was given to the industry during war years by the demand for livers for fish oil production for medicinal purposes. This production has risen from 3,750 gallons in 1940-41 to 15,250 gallons in 1943-44.

The presence of stocks of tuna of various species in Australian waters is undoubted, but, despite extensive experiments, no ready practicable method of taking them has yet been found. However, it appears, following experimental work, that another pelagic species, the horse-mackerel of Tasmania, can be taken by purse seine nets and will be taken in appreciable quantities within the next few years.

(ii) *Production.* Production in the year 1943-44 was slightly lower than that for 1942-43. Though there was a considerable loss in production because of the requisitioning of all steam trawlers and most Danish seine trawlers, it was in some measure offset by a development of the shark fishery.

2. *Oysters and Shell Fisheries.*—Initially the Australian oyster fisheries depended solely upon the harvesting of naturally grown stock in littoral and submarine areas. However, the stocks soon deteriorated and attention was turned to methods of cultivation. These have not been successful in Queensland, but in New South Wales there has been constant improvement in methods and the present technique in certain areas is highly efficient. Peak production of 44,723 bags was reached in 1938.

The cray fisheries have developed along with the other reef fisheries.

3. *Pearl-shell and Bêche-de-mer.*—Pearl-shelling is carried on in the tropical waters of Queensland, the Northern Territory and Western Australia. The pearl oyster inhabits the northern and western coastal waters from Cape York to Shark Bay, a length of shore of over 2,000 miles. The shells are marketed in considerable quantities, and pearls are obtained in Queensland, Western Australia and the Northern Territory. The fishing is generally conducted with the aid of diving apparatus in water varying from 4 to 20 fathoms in depth. In Queensland and the Northern Territory the bêche-de-mer industry is carried on, and tortoise-shell is obtained on the coasts. Experiments have been made in cultivating the pearl oyster on suitable banks. The value of trochus-shell of Australian origin exported during 1943-44 was £17,192.

§ 3. Marketing and Distribution.

1. *Marketing.*—The greater proportion of Australian fish is sold in metropolitan markets, but some is sold in metropolitan areas without passing through the market. The proportion of local and inland sales varies in different States, being estimated at about 50 per cent. in Queensland and about 10 per cent. in New South Wales; this proportion is dependent upon the degree of concentration of population and on facilities for efficient transport of fish. Marketing in Queensland is subject to a Marketing Act whereby marketing areas may be declared after which all fish caught and sold in the area must be sold at the Government market. There is some interstate trade in supplies: some fish from northern New South Wales passes to Queensland and some southern New South Wales fish passes to Victoria. New South Wales derives a small quantity of high grade fish from Queensland and barracouta and crayfish from Tasmania. Victoria receives fish from New South Wales, Tasmania and South Australia, the latter State supplying chiefly whiting.

2. *Consumption of Fish.*—Prior to the 1939-45 War Australians consumed annually the equivalent of about 145 million lb. of round fish, or 20.7 lb. per person. About 65 million lb. was produced locally and the remainder was imported: that is, the average Australian ate about 9.3 lb. of Australian fish a year and the equivalent of 11.4 lb. of overseas fish. The per capita consumption in the United Kingdom in 1937 was 49.8 lb., in New Zealand 23.8 lb. and in Japan 110 lb. During the 1939-45 War, however, the quantity of fish entering civilian consumption in Australia was reduced to approximately 4 lb. per person annually owing to the decline in local production, the steep drop in the imports of canned fish and the allocation of supplies for the Services and other priority needs.

The low consumption of fish in Australia is due partly to the abundance of food available from the soil, partly to climatic and transport problems of distribution, and in part to problems of production and the difficulties of expansion, which include strong seasonal fluctuations and the absence of certain special types of fish. The latter two factors operate to engender an instability of demand so that fish is regarded as an item of luxury or as a welcome change of diet rather than as a staple item of food.

3. Processing, including Canning.—The equipment for handling fish has been somewhat inadequate, but rapid advances are being made in the provision of this equipment, particularly of snap-freezing plant.

There is no considerable trade in smoking, salting or other light processing but plans are being laid for kippering Tasmanian horse-mackerel.

Apart from some establishments which may be engaged in the canning of fish as a subsidiary to that of meat and fruit, fish canneries have been established at various places in Australia with varying results. The industry has not developed, however, and the cause has been attributed to either faulty location, failure of supply or failure to ensure a sound market.

Canneries of southern New South Wales have temporarily ceased operation, due, in the main, to lack of raw material supplies. Some new canneries have been established or are planned.

4. By-Products.—Processing of offal for meals, etc., has been established in certain States. The processing of livers for vitamin rich oils has been undertaken in three establishments in southern States and oil-production has been favourably developed.

§ 4. Inquiries and Research.

1. General.—Australian fishing industries have been the subject of very numerous inquiries seeking explanation of the very slow rate of development, of the unfortunate conditions prevailing within the industry and of the paucity of supplies available to the public. To meet the situation revealed, various research programmes have been instituted.

2. Conference 1927-1929.—With the object of reviewing the potentialities of the fishing industry of Australia the Development and Migration Commission convened a meeting of State and Commonwealth representatives. The Conference, which was held in Melbourne during September, 1927, affirmed:—

- (1) The importance of establishing a Marine Biological Institution to study the scientific problems connected with Australian fisheries, and to collect and disseminate authoritative information and give advice on matters concerning the fisheries;
- (2) The desirability of establishing an experimental trawling unit to explore the fisheries resources of Australia.

Committees were formed to deal with important problems concerning the preservation, transportation, marketing and distribution of fish, the canning and curing of fish, the production of fish by-products, the factors of destruction in fisheries, the development of the oyster industry, etc. The reports prepared by these Committees were submitted to a further conference held in July, 1929, at which the Commonwealth and all State Governments were represented; it was then unanimously recommended that investigation work should be undertaken by the Commonwealth Government.

3. Council for Scientific and Industrial Research, Division of Fisheries.—Acting on the recommendation of the 1927-1929 Conference the Commonwealth Government entrusted to the Council for Scientific and Industrial Research the task indicated by the Conference. In its original plans the Council provided a sum of £80,000, spread over a period of five years, for the following purposes:—(i) to procure a vessel specially designed for the exploration of pelagic or surface-swimming fish, but which could also carry out

certain investigations of demersal or bottom-dwelling species; (ii) to undertake experiments in the canning of fish and the determination of the chemical composition of fish thought to be suitable for the manufacture of fish by-products; (iii) to determine, by tests, the best methods of curing and preserving fish, especially the more common varieties; and (iv) in co-operation with the State authorities, to undertake a study of the systems of distribution of fish in each State with a view to improving existing transport and marketing facilities. A research vessel constructed at a cost of £17,000 was commissioned in 1938 and a programme of work was laid down extending over a period of five years. During the first three years the investigation was confined to the south-eastern portion of the Australian coast; part of the work was extended later to the south-western portion of the Continent. Experimental cruises completed so far have revealed the presence of eleven kinds of tuna and other commercial species such as pilchard. A Fisheries Laboratory and Research Station has been erected at Port Hacking in New South Wales.

The results of the first five years work have led the Council to place this programme on a permanent basis, and the Division will continue its work of exploration and biological assay of the stocks.

4. **Tariff Board Inquiry.**—The Tariff Board, after an inquiry held in 1941, concluded that the development of a prosperous fishing industry would be an important contribution to the war effort, that the possibilities of commercial exploitation were established, and that the stage had now been reached when additional governmental assistance was desirable. It recommended that assistance to the Council for Scientific and Industrial Research be continued and that a Commonwealth Fisheries Development Authority be established with the necessary authority to carry out its functions.

5. **War-time Control.**—A conference between representatives of the Council for Scientific and Industrial Research and State Departments administering fisheries was held in October, 1941, for the purpose of inquiring into the constitution of the proposed Commonwealth Authority and other related matters.

No action arose from this Conference. In 1942 the Division of Fisheries, Council for Scientific and Industrial Research, prepared, on behalf of the Director-General of Man Power, a register of man-power in the industry and made suggestions for the rationalization of the industry under war-time conditions. As a result of these suggestions a Controller of Fisheries was appointed to co-ordinate and organize the industry. The programme of the Controller includes the setting of production goals, control of the allocation of man-power, fuel and equipment, organization of co-operatives within the industry, rationalization of marketing and distribution and general supervision of development.

6. **Pearl-shell Fishery Royal Commission.**—In accordance with the "White Australia" policy it was originally determined that the employment of Asiatic labour in the pearl-shelling industry should be restricted, and ultimately cease, and it was proposed that after 31st December, 1913, permits to bring in Asiatics for the pearling fleet should no longer be issued. In view, however, of the disorganization of the industry occasioned by the 1914-19 War, the time was extended to the 30th June, 1918, after which date permits to introduce Asiatic labour were to be granted only in cases where the diver and tender of a boat were Europeans. The Royal Commission appointed in March, 1912, presented its final report in 1916. The Commissioners stated that, though it might be practicable, they did not consider it advisable or profitable to attempt to transfer the industry from Asiatics to Europeans. They further stated that, while the labour employed is almost entirely Asiatic, they did not consider that the "White Australia" policy would be weakened or imperilled by allowing the industry to continue as then conducted.

7. **Pearl-shell Fishery Tariff Board Inquiry.**—Arising out of an application for the payment of a bounty on pearl-shell gathered by fishing vessels registered in Australia, the industry was the subject of an inquiry by the Tariff Board which presented its report in 1935. The Board did not approve the granting of a bounty but recommended some relief to the industry in the form of the remission of primage and customs duty.

§ 5. The Fishing Industry.

1. Boats and Men Engaged, and Take.—(i) *General Fisheries.* The returns have been compiled from particulars supplied by the State Departments, and while the data do not generally lend themselves to presentation on a uniform basis, the principal facts are shown in the following tables:—

GENERAL FISHERIES, 1943-44.

State or Territory.	Boats Engaged.	Value of Boats and Equip-ment.	Men Engaged.	Total Take of—		Gross Value of Take—	
				Fish.	Spiny Lobster (Crayfish).	Fish.	Spiny Lobster (Crayfish).
	No.	£	No.	Cwt.	Doz.	£	£
New South Wales..	1,971	271,399	(a) 3,872	212,512	4,596	694,207	(b) 87,112
Victoria..	1,117	221,605	1,928	86,815	1,824	405,136	3,313
Queensland	1,688	158,056	3,192	67,360	(c) 13,402	306,714	(d) 27,003
South Australia(e)	1,217	152,100	1,803	40,950	17,200	250,500	22,725
Western Australia(e)(f)	423	64,438	(g) 816	22,284	39,223	155,988	(h) 17,288
Tasmania(i)	451	100,000	789	50,050	63,668	116,784	89,135
Northern Territory	(j)	(j)	(j)	(j)	(j)	(j)	(j)
Total	6,867	967,598	12,400	479,971	130,913	1,929,329	246,576

(a) Fishermen's licences issued. (b) Includes the value of prawns and crabs. (c) Crabs. (d) Includes £10,280, the value of 943 cwt. of prawns; and £1, the value of 19 turtles. (e) Year ended December, 1943. (f) Includes 313 boats licensed by part-time fishermen. (g) Includes 545 part-time operatives and others who have only a licence to net fish for own use. (h) Includes £4,723, the value of 442 cwt. of prawns and 1,720 dozen crabs. (i) Includes oyster fisheries. (j) Not available.

Returns for Australia for the years 1938-39 and 1940-41 to 1943-44 are given in the table below:—

GENERAL FISHERIES : AUSTRALIA.

Particulars.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
No. of boats engaged ..	5,462	6,229	5,530	6,156	6,867
No. of men engaged ..	9,081	9,806	9,526	10,106	12,400
Fish obtained—					
Quantity .. cwt.	612,735	576,928	534,339	467,547	479,971
Gross value .. £	1,385,281	1,448,952	1,679,284	1,920,293	1,929,329
Lobsters obtained—Gross value £	134,866	144,368	170,354	227,775	246,576

(ii) *Edible Oyster Fisheries.* Edible oyster fisheries are of small dimensions outside New South Wales and Queensland. During 1943-44 the available returns show the following takes:—New South Wales, 45,874 cwt., value £112,392; Queensland, 3,981 cwt., value £8,659. In Tasmania the scallop is far more important than the oyster. In 1943-44 the scallops taken in Tasmania were valued at £15,428.

Returns for Australia for the years 1938-39 and 1940-41 to 1943-44 are given in the following table:—

EDIBLE OYSTER FISHERIES : AUSTRALIA.

Particulars.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Boats engaged ..	No. 754	768	855	715	816
Men engaged ..	850	1,021	837	728	790
Oysters obtained—					
Quantity .. cwt.	89,145	86,463	88,949	79,885	50,482
Gross value (a) .. £	132,201	136,150	139,142	171,754	137,698

(a) Includes scallops in Tasmania valued at £14,500 in 1938; £13,650 in 1939; £14,000 in 1940; £18,600 in 1941; £14,583 in 1942-43; and £15,428 in 1943-44.

(iii) *Pearls, Pearl-shell and Bêche-de-mer—States.* At the outbreak of war in the Pacific in December, 1941, the pearling industry ceased to operate. The latest available particulars of the equipment used and production are shown in the following table. As details for Western Australia for the year 1941 are available they are appended to the table :—

PEARL, PEARL-SHELL AND BÊCHE-DE-MER FISHERIES,^A(a) 1940-41.

State or Territory.	Number of Boats Engaged.	Value of boats and Equipment.	Number of Men Engaged.	Pearl-shell.		Gross Value of Pearls obtained. (b)	Gross Value of Bêche-de-mer obtained.	Gross Value of Tortoise-shell obtained.
				Quantity obtained.	Gross Value.			
	No.	£	No.	Tons.	£	£	£	£
Queensland (c) ..	88	95,036	924	1,187	160,335	..	6,890	6
Western Australia (d)								
(e) ..	65	55,981	536	700	73,903	1,584	24	15
Northern Territory (f)	9	5,000	80	131	11,434	..	..	..
Australia ..	162	156,017	1,540	2,018	245,672	1,584	6,914	21
Western Australia 1941 (g) ..	57	55,398	487	616	96,127	2,360	..	..

(a) No pearl-shell industry in New South Wales, Victoria, South Australia and Tasmania.
 (b) Incomplete; as returned. (c) Also 276 tons of trochus-shell valued at £19,286. (d) Year ended December, 1940. (e) Also 3 cwt. trochus-shell valued at £10. (f) Year 1939-40.
 (g) Queensland and Northern Territory not available for 1941-42.

(iv) *Australia.* The figures for tortoise-shell and trochus-shell are incomplete, as the necessary information is not collected in full detail. In the following summary of production during the five years ended 1940-41 figures of exports of Australian origin are inserted for both of these items :—

Details for later years are given in § 6. 3 hereafter.

PEARL, PEARL-SHELL AND BÊCHE-DE-MER FISHERIES : AUSTRALIA.

Particulars.		1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
Boats engaged ..	No.	221	204	181	167	162
Men engaged ..	..	2,241	1,941	1,750	1,408	1,540
Pearl-shell obtained—						
Quantity ..	tons	2,780	2,854	2,543	2,149	2,018
Value ..	£	340,244	310,655	222,281	198,264	245,672
Value of—						
Pearls obtained (a) ..	£	5,495	4,111	3,397	2,620	1,584
Bêche-de-mer obtained	£	6,495	14,237	8,145	669	6,914
Tortoise-shell exported	£	367	380	151	205	138
Trochus-shell exported	£	51,209	32,147	34,166	37,704	6,791

(a) Incomplete; as returned.

2. *Value of Production—Gross and Local.*—(i) *General.* Although statistics of the value of production of the fishing industry have been on an established basis for some years, attention is drawn to the fact that the actual collection of statistics of the quantity of fish taken presents many difficulties and consequently any defects which may occur in their collection must necessarily be reflected in the value of production. Particulars of the value of other materials used in the process of production are not available for all States, so the values can only be stated at the point of production and not on a net

basis as has been done with other industries. Variations in the relative proportions of marketing costs to gross production suggest that complete uniformity in method has not yet been attained.

GROSS AND LOCAL VALUE OF FISHERIES PRODUCTION, 1943-44.

State.	Gross Production Valued at Principal Markets.	Marketing Costs.	Gross Production Valued at Place of Production.	Value of other Materials used in process of Production.	Net Value of Production.(a)
	£	£	£	£	£
New South Wales ..	894,000	166,000	728,000	13,000	715,000
Victoria ..	409,143	63,387	345,756	(b)	(b)
Queensland ..	342,000	70,000	272,000	70,000	202,000
South Australia ..	273,750	33,403	240,347	(b)	(b)
Western Australia ..	173,276	13,188	160,088	23,265	136,823
Tasmania ..	221,350	..	221,350	(b)	(b)
Total (c) ..	2,313,519	345,978	1,967,541	(b)	(b)

(a) No deduction has been made for depreciation and maintenance.

(b) Not available.

(c) Excludes production in the Northern Territory.

(ii) *States* 1934-35 to 1943-44. In the following table the local value of fisheries production and the local value per head of population are given by States for the years 1934-35 to 1943-44. Local value is gross value less marketing costs and is the value at the place of production. The value of materials used in the course of production is not available for all States and consequently production is valued at that point. These values therefore overstate the net values by the extent of these costs.

LOCAL VALUE OF FISHERIES PRODUCTION.

Year.	N.S.W.	Vic.	Qld.	S.A.	W. A.	Tas.	Total.
LOCAL VALUE.(a)							
	£	£	£	£	£	£	£
1934-35 ..	536,000	140,549	261,411	151,843	181,913	71,300	1,343,016
1935-36 ..	583,000	146,946	287,000	151,800	179,405	71,040	1,419,191
1936-37 ..	650,000	161,999	336,000	184,669	224,432	80,900	1,638,000
1937-38 ..	548,000	168,095	296,000	209,234	286,580	87,050	1,594,959
1938-39 ..	620,000	176,919	277,000	220,401	269,894	90,350	1,654,564
1939-40 ..	508,000	199,632	285,000	202,009	252,837	109,910	1,557,388
1940-41 ..	517,000	244,444	330,000	227,987	251,529	96,830	1,667,790
1941-42 ..	619,000	387,462	185,000	245,301	226,945	109,570	1,773,278
1942-43 ..	830,000	377,418	242,000	277,014	117,202	80,450	1,930,084
1943-44 ..	728,000	345,756	272,000	240,347	160,088	221,350	1,967,541

LOCAL VALUE PER HEAD OF MEAN POPULATION.

	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1934-35 ..	4 1	1 6	5 5	5 2	8 3	6 3	4 0
1935-36 ..	4 5	1 7	5 11	5 2	8 0	6 2	4 3
1936-37 ..	4 9	1 9	6 10	6 3	9 11	7 0	4 10
1937-38 ..	4 0	1 10	5 11	7 1	12 6	7 5	4 8
1938-39 ..	4 6	1 11	5 6	7 5	11 8	7 8	4 9
1939-40 ..	3 8	2 1	5 7	6 9	10 10	9 2	4 5
1940-41 ..	3 9	2 7	6 4	7 7	10 8	8 0	4 9
1941-42 ..	4 5	4 0	3 7	8 1	9 8	9 2	5 0
1942-43 ..	5 11	3 10	4 8	9 0	4 11	7 2	5 4
1943-44 ..	5 1	3 6	5 2	7 9	6 8	18 2	5 5

(a) No deduction has been made for depreciation and maintenance.

3. **Fish Preserving.**—The attempt to establish the fish preserving industry at the commencement of this century met with little success although a bounty was paid to encourage production. The industry, however, has continued to operate, and small quantities of fish have been canned from time to time.

In 1939 New South Wales and Tasmania were the only producing States, but by 1941 the industry had been extended to South Australia and Western Australia. Details of production are given in the following table for the years indicated.

PRODUCTION OF CANNED FISH : AUSTRALIA.

Particulars.		1938-39.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.
Quantity	lb.	603,302	1,614,718	966,326	1,066,656	1,286,307	533,740
Value	£	13,700	46,425	31,068	50,029	65,912	43,856

Similar details according to varieties canned are not available. The varieties canned in the various States vary according to the catch available. In New South Wales salmon is the principal variety, while in South Australia the varieties are more varied and include mullet, salmon, garfish, etc. In Western Australia herrings, crayfish and mullet are included and in Tasmania salmon and crayfish.

4. **State Revenue from Fisheries.**—The revenue from fisheries in each State during the year 1943-44 is given hereunder :—

FISHERIES : REVENUE, 1943-44.

State or Territory.	Licences.	Leases.	Fines and Forfeitures.	Other Sources.	Total.
	£	£	£	£	£
New South Wales ..	4,663	11,804	214	129	16,810
Victoria	1,923	74	332	17	2,346
Queensland	4,200	1,792	436	19	6,447
South Australia (a) ..	2,066	..	44	135	2,245
Western Australia (a) ..	828	..	66	26	920
Tasmania	620	..	..	330	950
Northern Territory (b) ..	..	..	..	..	..
Total	14,300	13,670	1,092	656	29,718

(a) Year ended December, 1943.

(b) Not available.

Similar particulars for Australia for the years 1938-39 and 1940-41 to 1943-44 are given in the following table :—

FISHERIES : REVENUE, AUSTRALIA.

Particulars.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
	£	£	£	£	£
Licences	15,563	12,254	11,855	10,587	14,300
Leases	12,446	11,480	10,281	13,217	13,670
Fines and Forfeitures ..	1,397	1,496	1,695	828	1,092
Other Sources	4,867	1,138	593	913	656
Total	34,273	26,368	24,424	25,545	29,718

§ 6. Oversea Trade in Fishery Products.

1. Imports of Fish.—The large importations of fish and fish products made each year give further evidence of the desirability of developing the fishing industry of Australia. Imports for the years 1940-41 to 1943-44 in comparison with 1938-39 are given below:—

FISH AND FISH PRODUCTS: IMPORTS INTO AUSTRALIA.

Classification.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
QUANTITY.					
Fish—	cwt.	cwt.	cwt.	cwt.	cwt.
Fresh or preserved by cold process ..	83,393	55,471	33,114	21,162	19,033
Potted or concentrated ..	9,435	1,304	115	..	..
Preserved in Tins—					
Herrings	38,917	9,677	5,572	6,453	49,894
Salmon	166,695	117,429	29,214	45,188	36,098
Sardines	29,372	15,595	181	..	12,455
Other	14,306	6,442	3,684	43,786	17,196
Crustaceans	6,829	461	459	150	65
Oysters	1,939	2,060	1,587	862	581
Smoked or dried (not salted)	8,122	2,111	2,069	..	17
Other	7,987	1,522	487	1,149	1,339
Oysters in the shell ..	635	315	245	400	117

VALUE IN AUSTRALIAN CURRENCY.

Fish—	£A.	£A.	£A.	£A.	£A.
Fresh or preserved by cold process ..	273,289	213,328	154,120	112,801	108,211
Potted or concentrated ..	122,250	16,316	1,179	1	..
Preserved in Tins—					
Herrings	138,391	35,060	24,856	4,078	215,119
Salmon	716,164	593,032	189,064	375,290	244,841
Sardines	182,336	78,676	529	1	46,805
Other	63,996	45,379	49,055	266,884	96,331
Crustaceans	70,328	5,837	4,980	2,303	897
Oysters	13,995	18,503	13,973	7,832	4,850
Smoked or dried (not salted)	23,603	8,106	8,674	..	125
Other	10,948	8,047	3,104	9,669	11,799
Oysters in the shell ..	704	537	317	279	741
Total	1,616,004	1,022,821	449,851	779,138	729,719

Canned fish constitutes by far the largest proportion of the imports; salmon from Canada and the United States of America, herrings from Canada and the United Kingdom and sardines from Norway were the chief varieties imported. The potted fish comes chiefly from the United Kingdom and New Zealand, which also supplied a considerable proportion of the fresh fish imported in 1943-44; the bulk of the remainder came from the Union of South Africa. The small import of oysters is supplied by New Zealand, which has also furnished the bulk of the crustaceans imported in recent years.

2. Exports of Fish.—The exports of fish are comparatively insignificant. During 1943-44 they were as follows:—Fresh or preserved by cold process, 100 cwt., £580; potted or concentrated, £1,360; preserved in tins, 53,269 cwt., £294,164; smoked or dried, 14 cwt., £179.

3. Exports of Pearl and other Shell.—The exports of pearl, tortoise and trochus-shell of Australian origin are given hereunder for the years 1938-39 and 1940-41 to 1943-44 :—

PEARL, TORTOISE AND TROCHUS-SHELL : EXPORTS FROM AUSTRALIA.

Article.			1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Pearl-shell ..	.. {	cwt.	52,532	37,024	36,846	645	51
		£	244,266	196,263	252,766	7,525	489
Tortoise-shell ..	.. {	cwt.	4	3	..	..	1
		£	151	138	..	..	97
Trochus-shell ..	.. {	cwt.	9,108	2,332	9,977	6,779	2,925
		£	34,166	6,791	36,807	33,558	17,192

All the trochus-shell exported during 1943-44 was consigned to the United States of America.

CHAPTER XXIV.

WATER CONSERVATION AND IRRIGATION.

§ 1. Artesian Water.

1. **General.**—In every country subject to droughts the provision of adequate systems of water conservation is a matter of prime importance. Much has been done in Australia so far as the supply of water to centres of population is concerned, and a description of the principal water-works in each State will be found in Chapter XVI. "Local Government".

Interstate conferences on the subject of artesian water were held in 1912, 1914, 1921, 1924 and 1928, when combined Governmental action was agreed upon with reference to delimitation of the artesian basins, hydrographic surveys, reason for decrease in flow, analyses and utilization of artesian water, etc. A map showing the extent of the known artesian basins appears on pp. 917-8.

2. **The Great Australian Artesian Basin.**—The area known as the "Great Australian Artesian Basin" includes (a) considerably more than one-half of Queensland, taking in practically all that State lying west of the Great Dividing Range, except an area in the north-west contiguous to the Northern Territory; (b) a considerable strip of New South Wales along its northern boundary and west of the Great Dividing Range; and (c) the north-eastern part of South Australia, together with the extreme south-eastern corner of the Northern Territory. This basin (shown approximately by the map on pp. 917-8) is said to be the largest yet discovered, and measures about 600,000 square miles, of which 376,000 are in Queensland, 118,000 in South Australia, 80,000 in New South Wales, and 25,000 in the Northern Territory. The area of the intake beds is estimated at 60,010 square miles, comprising 50,000 in Queensland and 10,010 in New South Wales. A description of the basin and its geological formation appears in previous issues of the Official Year Book (see No. 6, p. 569).

3. **The Western Australian Basins.**—The Western Australian Basins fall naturally within five distinct groups, namely, the Eucla Basin, in the extreme south-east of the State, extending well into South Australia along the shores of the Great Australian Bight; the Coastal Plain Basin, west of the Darling Range; the North-West Basin, between the Murchison and Ashburton Rivers; the Gulf Basin, between Cambridge Gulf and Queen's Channel; and the Desert Basin, between the De Grey and Fitzroy Rivers.

The Recent and Tertiary strata which enter Western Australia at its eastern border, and which have a prevailing dip towards the Great Australian Bight, form the Eucla artesian water area. Where boring operations have been undertaken, the water has been found to be salt or brackish, and there are other conditions affecting the supply, such as local variation in the thickness of the beds, their relative porosity, and the unevenness of the floor upon which they rest, which so far have not been examined with sufficient thoroughness to enable many particulars to be given in regard to this basin.

In the Coastal Plain Basin to the west of the Darling Ranges artesian boring has, on the other hand, been carried on successfully for many years.

4. **The Murray River Basin.**—The Murray River Basin extends over south-western New South Wales, north-western Victoria, and south-eastern South Australia. It is bounded on the west by the azoic and palæozoic rocks of the Mount Lofty and other

ranges extending northwards from near the mouth of the Murray to the Barrier Range, and on the east and north-east by the ranges of Victoria and New South Wales. This tertiary water-basin is occupied by a succession of sedimentary formations, both porous and impervious. The waters of the Murray River are partly supplied by influx from the water-bearing beds of this basin; this is proved by the fact that, at low water, springs are observed at certain places flowing into the river bed from beneath the limestone cliffs from Pyap Bend downwards. Similar springs exist along the courses of other branches of the River Murray system, where they cut through the tertiary formation. On the Victorian side, bores have been put down, and water has been struck at various levels.

5. **Plutonic or Meteoric Waters.**—In previous issues of the Official Year Book will be found a statement of the theory of Professor Gregory* as to the origin of the water in the Australian artesian basins, together with the objections held thereto by a former Government Geologist of New South Wales† (see Official Year Book No. 6, p. 570).

6. **Artesian and Sub-Artesian Bores.**—(i) *General.* The following table gives particulars regarding artesian and sub-artesian bores in each State and in the Northern Territory. As a result of the war-time conditions the collection of this information has been discontinued since 1939-40:—

ARTESIAN AND SUB-ARTESIAN BORES, 1939-40.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust. (a)	W. Aust.	N. Terr.	Australia. (b)
Bores existing .. No.	763	330	6,514	162	284	191	8,244
Total depth of existing bores .. '000 feet	(c) 1,167	11	3,099	116	231	63	4,687
Daily flow .. '000 gals.	(d) 68,653	3,000	260,000	12,972	(e)	7,723	352,348
Depth at which artesian water was struck—							
Maximum .. feet	4,338	3,000	6,000	4,851	4,006	1,760	6,000
Minimum .. "	100	50	10	233	30	42	10
Temperature of flow—							
Maximum .. °Fahr.	141	160	212	208	(e)	(e)	212
Minimum .. "	75	10	78	82	(e)	(e)	10

(a) Government bores only.
bores only.

(b) Incomplete.

(c) Total depth of all bores.

(e) Not available.

(ii) *Details for States.*—Considerations of space preclude the insertion of separate particulars of operations in the States during 1939-40. Details for earlier years appear in issues of the Official Year Book prior to No. 23, 1930.

§ 2. Irrigation.

1. **General.**—Australia's first experiments in irrigation were made with the object of bringing under cultivation areas in which an inadequate rainfall rendered agricultural and even pastoral occupations precarious and intermittent, and, although these original settlements have generally proved fairly successful, most of the States, instead of promoting new settlement in unoccupied regions, are adopting the policy of making existing settlements closer, by repurchasing large estates, sub-dividing them into holdings of suitable sizes for cultivation, and selling the land upon easy terms of payments. It is in connexion with this Closer Settlement policy that the special value of irrigation is recognized. Information regarding the various irrigation schemes in operation is given in some detail in preceding issues of the Official Year Book (see No. 23, pp. 637-61).

* See J. W. Gregory, F.R.S., D.Sc.: "The Dead Heart of Australia," London, John Murray, 1906; and "The Flowing Wells of Central Australia," Geogr. Journal, July and August, 1911.

† E. F. Pittman, A.R.S.M., formerly Government Geologist of New South Wales: "Problems of the Artesian Water Supply of Australia, with special reference to Professor Gregory's Theory." (Clarke Memorial Lecture, delivered before the Royal Society of New South Wales, 31st October, 1907); "The Great Australian Artesian Basin," Sydney, 1914; and "The Composition and Porosity of the Intake Beds of the Great Australian Artesian Basin," Sydney, 1915.

2. **Areas Irrigated**.—The following table gives the areas irrigated in each State during the years 1931-32 to 1941-42. The area shown for New South Wales refers only to crops irrigated. It does not include pasture land and fallow land which may have been irrigated and consequently the area is not strictly comparable with that shown for other States. The collection of this information was suspended in each State after 1941-42, but has been resumed for the year 1945-46.

IRRIGATION : AREAS IRRIGATED.

Season.	N.S.W. (a)	Victoria.	Queensland.	S. Aust.	W. Aust.	Tasmania.	Total.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1931-32 ..	114,777	418,415	28,414	42,813	6,104	7,768	618,291
1932-33 ..	130,977	474,716	31,409	42,556	6,434	7,605	693,697
1933-34 ..	131,772	435,324	29,363	42,898	7,640	9,194	656,191
1934-35 ..	125,423	494,226	34,138	39,594	8,861	7,786	(b) 710,054
1935-36 ..	138,016	495,835	44,283	42,672	11,396	8,987	(b) 741,312
1936-37 ..	151,683	518,827	44,509	42,292	13,295	9,987	(b) 780,663
1937-38 ..	170,719	590,112	49,154	44,250	14,284	8,428	(b) 876,953
1938-39 ..	183,518	515,357	48,953	43,602	14,278	8,599	(b) 814,357
1939-40 ..	120,753	517,993	55,153	44,470	15,443	8,656	(b) 762,641
1940-41 ..	158,337	596,662	60,961	46,268	14,513	8,821	(b) 885,953
1941-42 ..	(c)	602,074	(c)	45,757	15,060	6,975	(c)

(a) Excludes pasture and fallow lands.

(b) Includes Australian Capital Territory, 1934-35, 26 acres; 1935-36, 123 acres; 1936-37, 70 acres; 1937-38, 6 acres; 1938-39, 50 acres; 1939-40, 263 acres; 1940-41, 391 acres; and 1941-42, 48 acres.

(c) Not available.

3. **Crops on Irrigated Areas**.—A classification of the crops grown on irrigated areas in each State during 1940-41 will be found in the next table. Lucerne, grasses and green fodder accounted for 33 per cent., cereals for 25 per cent., orchards and vineyards for 27 per cent., and root crops, market-gardens, etc., for 15 per cent. of the total area of crops under irrigation in 1940-41. The area in Victoria does not include 352,556 acres of pasture land which were irrigated in 1940-41. Likewise 6,270 acres of pasture land are also omitted from the Tasmanian figures for the same year.

Later details are not available as the collection was suspended after 1940-41. It has been resumed for 1945-46.

IRRIGATION : CROPS ON IRRIGATED AREAS, 1940-41.

Crop.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total. (a)
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Cereals ..	77,461	53,499	413	..	..	..	131,373
Lucerne, Grasses and Green Fodder ..	40,018	105,809	8,063	(b) 10,173	8,824	67	173,255
Orchards and Vineyards ..	29,568	72,403	10,207	29,590	2,218	961	144,947
Root Crops, Market-gardens and other Crops ..	11,290	12,395	(c) 42,278	6,505	3,471	(d) 1,523	77,552
Total ..	158,337	244,106	60,961	46,268	14,513	2,551	527,127

(a) Includes 391 acres Australian Capital Territory as follows :—Green Fodder, 301 acres; and Market-gardens, 90 acres.

(b) Includes pasture land.

(c) Includes Sugar-cane, 39,768 acres; Cotton, 1,066 acres; and Tobacco, 1,430 acres.

(d) Includes Hops, 967 acres.

CHAPTER XXV.

MANUFACTURING INDUSTRY.

NOTE.—Working proprietors are included in all cases in the "Number of Persons Engaged".

Single-year tables in this issue relate to the year 1943-44, and in the immediately preceding issue to the year 1941-42. Corresponding tables for 1942-43 may be found in the *Production Bulletin* 1942-43 No. 37, Part I.—Secondary Industries.

§ 1. Number of Factories.

1. Number of Factories in each State.—For statistical purposes, a "factory" was defined by the Conference of Statisticians in 1902 as any factory, workshop or mill where four or more persons are employed or power is used. The statistics which follow should be read in the light of this definition. The following table gives the number of factories in each State for the four years 1940-41 to 1943-44 compared with 1938-39:—

FACTORIES : NUMBER.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
1938-39 ..	9,464	9,250	3,087	2,067	2,129	944	26,941
1940-41 ..	9,919	9,121	2,972	2,230	2,056	1,002	27,300
1941-42 ..	10,166	8,918	2,788	2,167	1,938	994	26,971
1942-43 ..	10,110	8,738	2,641	2,134	1,799	992	26,414
1943-44 ..	10,755	9,317	2,652	2,149	1,807	994	27,674

2. Number of Factories in Industrial Classes.—(i) *Australia.* The next table shows the number of factories in Australia during 1938-39 and the last four years, classified in the industrial classes agreed upon by the Conference of Statisticians in 1930. This classification, which was introduced during 1930-31, superseded the grouping which had been in use since 1902. The definition of a factory adopted at the Conference of Statisticians in 1902 is, however, still used. Details in regard to some of the principal industries included in the table will be found in § 9 hereinafter.

FACTORIES : NUMBER IN INDUSTRIAL CLASSES, AUSTRALIA.

Class of Industry.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
I. Treatment of Non-metalliferous Mine and Quarry Products	564	576	517	412	417
II. Bricks, Pottery, Glass, etc.	471	440	415	322	289
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease	666	719	740	770	816
IV. Industrial Metals, Machines, Implements and Conveyances	7,255	7,315	7,236	7,306	7,788
V. Precious Metals, Jewellery and Plate	290	304	291	262	258
VI. Textiles and Textile Goods	611	705	761	785	821
VII. Skins and Leather	533	550	540	529	563
VIII. Clothing	4,314	4,370	4,316	4,201	4,402
IX. Food, Drink and Tobacco	5,202	5,314	5,218	5,179	5,457
X. Woodworking and Basketware	2,822	2,784	2,801	2,689	2,799
XI. Furniture, Bedding, etc.	1,149	1,124	1,035	933	917
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	1,816	1,810	1,744	1,681	1,673
XIII. Rubber	299	283	269	260	275
XIV. Musical Instruments	34	39	45	35	35
XV. Miscellaneous Products	413	476	565	576	624
Total, Classes I. to XV.	26,439	26,818	26,493	25,940	27,194
XVI. Heat, Light and Power	502	482	478	474	480
Grand Total	26,941	27,300	26,971	26,414	27,674

Although not the best index of manufacturing activity, the number of factories affords some indication of the development of secondary industries. From 1931-32 to 1940-41 the number of factories increased each year but in the two succeeding years there were decreases followed, however, in 1943-44 by a substantial increase which brought the number to the new high level of 27,674.

(ii) *States, 1943-44.* The following table shows the number of factories in each State in 1943-44, classified according to the nature of the industry :—

FACTORIES : NUMBER IN INDUSTRIAL CLASSES, 1943-44.

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	Aust.
I. Treatment of Non-metalliferous Mine and Quarry Products ..	145	125	36	59	32	20	417
II. Bricks, Pottery, Glass, etc. ..	137	71	25	34	15	7	289
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	403	256	39	61	37	20	816
IV. Industrial Metals, Machines, Implements and Conveyances ..	3,127	2,701	654	571	521	214	7,788
V. Precious Metals, Jewellery and Plate ..	86	106	20	22	19	5	258
VI. Textiles and Textile Goods ..	263	453	21	41	24	19	821
VII. Skins and Leather ..	259	194	45	29	27	9	563
VIII. Clothing ..	1,925	1,730	269	279	205	54	4,462
IX. Food, Drink and Tobacco ..	1,835	1,601	742	585	421	270	5,457
X. Woodworking and Basketware ..	1,046	724	418	159	175	277	2,799
XI. Furniture, Bedding, etc. ..	285	325	101	84	74	48	917
XII. Paper, Stationery, Printing, Book-binding, etc. ..	654	624	147	114	106	28	1,673
XIII. Rubber ..	102	83	34	24	19	13	275
XIV. Musical Instruments ..	14	10	3	6	2	..	35
XV. Miscellaneous Products ..	330	203	34	32	21	4	624
Total, Classes I. to XV. ..	10,611	9,206	2,588	2,100	1,701	988	27,194
XVI. Heat, Light and Power ..	144	111	64	49	106	6	480
Grand Total ..	10,755	9,317	2,652	2,149	1,807	994	27,674

§ 2. Classification of Factories according to Number of Persons Engaged.

1. *States, 1943-44.*—The following table shows, for each State, the number of factories classified according to the number of persons engaged in 1943-44 :—

FACTORIES : CLASSIFICATION ACCORDING TO SIZE OF FACTORY, 1943-44.

No. of Persons Engaged in each Factory.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
NUMBER OF FACTORIES.							
Under 4 ..	3,505	3,217	784	632	840	318	9,296
4.. ..	924	745	277	222	99	117	2,384
5 to 10 ..	2,571	2,084	606	558	398	319	6,626
11 to 20 ..	1,472	1,315	380	290	181	106	3,744
21 to 50 ..	1,290	1,066	266	254	183	76	3,135
51 to 100 ..	462	416	113	101	66	32	1,190
Over 100 ..	531	474	136	92	40	26	1,299
Total ..	10,755	9,317	2,652	2,149	1,807	994	27,674

Some marked changes have taken place during the past decade in the distribution of factories according to the number of persons engaged. In 1933-34 of a total of 23,297 factories, 10,681, or 45.85 per cent., had less than five persons engaged whereas in 1943-44, although the number of such factories had increased to 11,680, this number represented only 42.21 per cent. of the total of 27,674 factories. The increase in the number of small factories is due to the inclusion of small repair establishments (boots and shoes, cycles and motors, etc.) which are technically accounted as factories owing to the installation of some power machine.

Factories with more than 100 persons engaged have advanced rapidly from 669 in 1933-34 to a new high level of 1,299 in 1943-44, the persons engaged in these factories increasing from 181,634, or 43.58 per cent. of the total number, to 460,802, or 59.64 per cent., during the same period.

The relative importance of large and small factories is illustrated by a classification of the average number of persons engaged according to the size of factory in which they work :—

FACTORIES : CLASSIFICATION OF PERSONS ENGAGED ACCORDING TO SIZE OF FACTORY, 1943-44.

No. of Persons Employed in Group.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
AVERAGE NUMBER ENGAGED DURING PERIOD WORKED.							
Under 4 ..	7,086	6,178	1,639	2,122	1,581	688	19,294
4 ..	3,696	2,930	1,108	888	396	468	9,536
5 to 10 ..	17,874	14,487	4,766	3,891	2,632	2,160	45,810
11 to 20 ..	21,312	19,300	5,632	4,191	2,590	1,574	54,599
21 to 50 ..	40,825	34,101	8,192	7,944	5,786	2,412	99,260
51 to 100 ..	32,824	28,788	7,748	7,046	4,693	2,202	83,301
Over 100 ..	202,539	156,312	36,022	43,931	10,754	11,244	460,802
Total ..	326,156	262,146	65,107	70,013	28,432	20,748	772,602
Av. per F'cty	30.33	28.14	24.55	32.58	15.73	20.87	27.92

2. Australia, 1938-39 and 1940-41 to 1943-44.—In the following table factories in Australia during 1938-39 and each of the four years 1940-41 to 1943-44 are classified according to the number of persons engaged.

FACTORIES : CLASSIFICATION ACCORDING TO NUMBER OF PERSONS ENGAGED, AUSTRALIA.

Year.	Establishments Employing on the Average—							
	20 and under.		21 to 100.		101 and upwards.		Total.	
	Es- tablish- ments.	Persons en- gaged.	Es- tablish- ments.	Persons en- gaged.	Es- tablish- ments.	Persons en- gaged.	Es- tablish- ments.	Persons en- gaged.
1938-39—								
Number ..	21,982	129,505	4,013	170,971	946	272,022	26,941	572,498
Average per establishment ..	..	5.89	..	42.60	..	287.55	..	21.25
Percentage on total ..	81.59	22.62	14.90	29.86	3.51	47.52	100.00	100.00
1940-41—								
Number ..	22,022	127,776	4,170	176,714	1,108	352,582	27,300	657,072
Average per establishment ..	..	5.80	..	42.38	..	318.21	..	24.07
Percentage on total ..	80.67	19.44	15.27	26.90	4.06	53.66	100.00	100.00
1941-42—								
Number ..	21,494	126,044	4,245	179,438	1,232	428,127	26,971	733,609
Average per establishment ..	..	5.86	..	42.27	..	347.51	..	27.20
Percentage on total ..	79.69	17.18	15.74	24.46	4.57	58.36	100.00	100.00
1942-43—								
Number ..	21,032	123,039	4,104	173,187	1,278	469,175	26,414	765,401
Average per establishment ..	..	5.85	..	42.20	..	367.12	..	28.98
Percentage on total ..	79.62	16.08	15.54	22.63	4.84	61.29	100.00	100.00
1943-44—								
Number ..	22,050	129,239	4,325	182,561	1,299	460,802	27,674	772,602
Average per establishment ..	..	5.86	..	42.21	..	354.74	..	27.92
Percentage on total ..	79.68	16.73	15.63	23.63	4.69	59.64	100.00	100.00

§ 3. Power Equipment in Factories.

1. **General.**—Statistics of power equipment in factories are now collected on a different basis from that used prior to 1936-37. Previously the statistics represented the "average horse-power used" in all factories, including Central Electric Stations, but in 1936-37 information was obtained in respect of the "rated horse-power" of engines ordinarily in use and of engines in reserve or idle, omitting obsolete engines. In addition, particulars of the power equipment of Central Electric Stations were collected in greater detail. To avoid duplication it is essential that some distinction should be made between Central Electric Stations and other classes of industries. In the following tables Central Electric Stations have been treated separately from other factories.

In para. 2 below, 1,022 factories are shown as using no power other than hand-power, the distribution of these factories among the various industries being as follows: Lime, Plaster and Asphalt, 23; Chemicals, Drugs and Medicines, 20; Galvanized Ironworking, Tinsmithing, 39; Ready-made Tailoring and Clothing, 288; Dressmaking, 80; Millinery, 44; Bakeries, 147; Cabinet and Furniture Making, 17; All other industries, 358.

2. **Rated Horse-power of Engines in Factories other than Central Electric Stations.**—The following table shows the number of factories using steam, gas, oil, electricity, or water power, those using hand-power, and the rated horse-power of engines ordinarily in use and in reserve or idle during 1943-44:—

FACTORIES(a) : RATED HORSE-POWER OF ENGINES, 1943-44.

State.	Number of Establishments.			Rated Horse-power of Engines.	
	Using Power.	Others.	Total	Ordinarily in use.	In Reserve or Idle (omitting obsolete).
	No.	No.	No.	H.P.	H.P.
New South Wales ..	10,343	310	10,653	903,273	90,939
Victoria ..	8,916	329	9,245	602,562	99,588
Queensland ..	2,492	112	2,604	219,238	26,331
South Australia ..	1,983	121	2,104	182,243	29,002
Western Australia ..	1,583	122	1,705	74,182	7,410
Tasmania ..	962	28	990	84,510	14,315
Australia ..	26,279	1,022	27,301	2,066,008	267,585

(a) Excludes Central Electric Stations.

3. **Rated Horse-power of Engines Ordinarily in Use.**—(i) *According to Type in States.* Particulars of the types of engines ordinarily in use in each State and their rated horse-power are given in the next table:—

FACTORIES(a) : TYPES AND RATED HORSE-POWER OF ENGINES ORDINARILY IN USE, 1943-44.

Rated Horse-power of Engines ordinarily in use.

State.	Steam.		Internal Combustion.			Motors driven by electricity.			Total. (b)
	Recipro- cating.	Turbine.	Gas.	Light Oils.	Heavy Oils.	Water.	Pur- chased.	Own Genera- tion. (c)	
	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.	
N.S.W.	110,578	58,687	3,280	5,257	14,500	183	710,788	74,304	903,273
Victoria	34,706	39,856	2,708	3,610	10,591	1,236	509,855	34,410	602,562
Queensland	78,507	15,018	7,581	2,914	16,143	..	99,075	51,182	219,238
S. Aust.	8,452	5,785	4,237	2,376	8,993	10	152,390	16,302	182,243
W. Australia	8,506	55	2,496	1,797	5,469	..	55,859	5,108	74,182
Tasmania	3,293	2,169	16	3,546	997	192	74,297	11,265	84,510
Australia	244,042	121,570	20,318	19,500	56,693	1,621	1,602,264	192,631	2,066,008

(a) Excludes Central Electric Stations.

(b) Excludes particulars in column (c).

(ii) *Australia, 1938-39 and 1940-41 to 1943-44.*—In the following table details of the horse-power of the various types of engines in use are given for Australia for the years 1940-41 to 1943-44 compared with 1938-39.

FACTORIES(a) : TYPES AND RATED HORSE-POWER OF ENGINES ORDINARILY IN USE, AUSTRALIA.

Rated Horse-power of Engines ordinarily in use.									
Year.	Steam.		Internal Combustion.			Water.	Motors driven by electricity.		Total: (b)
	Recipro- cating.	Turbine.	Gas.	Light Oils.	Heavy Oils.		Pur- chased.	Own Genera- tion. (c)	
	H.P.	H.P.	H.P.	H.P.	H.P.		H.P.	H.P.	
1938-39 ..	268,409	84,149	32,914	17,970	55,800	1,616	1,017,911	179,889	1,478,769
1940-41 ..	248,230	111,057	24,042	18,612	57,204	1,610	1,267,185	205,541	1,727,940
1941-42 ..	244,727	122,014	23,011	19,872	54,971	1,568	1,399,595	203,406	1,865,758
1942-43 ..	246,661	123,967	21,898	18,079	56,669	1,749	1,509,486	190,991	1,978,509
1943-44 ..	244,042	121,570	20,318	19,500	56,693	1,621	1,602,264	192,631	2,066,008

(a) Excludes Central Electric Stations.

(b) Excludes particulars in column (c).

(iii) *In Classes of Industry, 1943-44.* The next table shows the rated horse-power of engines ordinarily in use in the various classes of industry in each State during 1943-44.

FACTORIES(a) : RATED HORSE-POWER OF ENGINES ORDINARILY IN USE, 1943-44.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
I. Treatment of Non-metalliferous Mine and Quarry Products ..	38,698	25,312	7,831	6,198	4,684	9,111	91,834
II. Bricks, Pottery, Glass, etc. ..	20,811	11,406	2,722	3,749	1,744	411	40,843
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	38,519	57,010	3,491	32,631	5,915	577	138,143
IV. Industrial Metals, Machines, Implements and Conveyances ..	482,993	169,536	43,080	70,466	21,051	19,830	806,956
V. Precious Metals, Jewellery and Plate ..	1,537	2,061	128	383	62	14	4,185
VI. Textiles and Textile Goods ..	28,293	58,706	3,123	6,794	1,230	4,067	102,213
VII. Skins and Leather ..	12,579	10,336	1,568	445	1,259	433	26,620
VIII. Clothing ..	11,605	16,104	1,385	1,288	857	238	31,477
IX. Food, Drink and Tobacco ..	123,051	102,217	113,011	32,318	19,579	9,372	399,548
X. Woodworking and Basket-ware ..	56,992	42,351	32,116	13,067	12,322	11,204	168,052
XI. Furniture, Bedding, etc. ..	8,936	5,998	3,118	2,824	1,583	798	23,257
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	34,108	60,678	5,166	7,837	2,929	27,962	138,680
XIII. Rubber ..	25,650	27,874	1,219	620	120	88	55,571
XIV. Musical Instruments ..	774	27	13	75	2	..	831
XV. Miscellaneous Products ..	8,196	6,711	249	529	302	250	16,237
Total, Classes I. to XV. ..	892,742	596,327	218,220	179,164	73,639	84,355	2,044,447
XVI. Gas Works ..	10,531	6,235	1,018	3,079	543	155	21,561
Grand Total ..	903,273	602,562	219,238	182,243	74,182	84,510	2,066,008

(a) Excludes Central Electric Stations.

4. Capacity of Engines and Generators installed in Central Electric Stations.—
(i) *According to Type in Australia.* Particulars of the type and the capacity of engines and generators installed in Central Electric Stations in Australia in 1943-44 are given in the following table :—

CENTRAL ELECTRIC STATIONS : POWER EQUIPMENT, AUSTRALIA, 1943-44.

		Capacity of Engines and Generators.						
Particulars.		Steam.		Internal Combustion.			Water.	Total.
		Reciprocating.	Turbine.	Gas.	Light Oils.	Heavy Oils.		
Engines installed—								
Total installed	Rated H.P.	26,258	2,222,523	21,432	1,384	160,127	242,477	2,674,201
Generators installed—								
Kilowatt capacity—								
Total installed	K.W.	17,245	1,611,120	14,233	753	104,370	182,404	1,930,125
Effective capacity	"	13,948	1,413,606	12,554	515	97,121	157,353	1,695,097
Maximum load	"	9,506	1,283,736	9,630	449	66,876	173,562	1,543,759
Horse-power equivalent—								
Total installed	H.P.	23,118	2,159,787	18,952	1,009	139,912	244,522	2,587,300
Effective capacity	"	18,698	1,895,010	16,741	690	130,195	210,940	2,272,274
Maximum load	"	12,743	1,720,912	12,851	601	89,651	232,669	2,069,427

(ii) *States.* Details of the capacity of engines and generators installed in Central Electric Stations in each State are given in the next table for 1943-44.

CENTRAL ELECTRIC STATIONS : POWER EQUIPMENT, 1943-44.

Particulars.		N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Engines Installed	Rated H.P.	1,198,536	670,733	288,115	200,470	153,370	162,977	2,674,201
Generators Installed—								
Kilowatt capacity—								
Total installed	K.W.	891,280	464,646	196,727	142,813	109,479	125,180	1,930,125
Effective capacity	"	782,178	432,312	141,178	142,226	96,453	100,750	1,695,097
Maximum load	"	689,866	433,259	115,453	121,548	65,643	117,990	1,543,759
Horse-power equivalent—								
Total installed	H.P.	1,104,805	622,881	263,594	191,448	146,762	167,810	2,587,300
Effective capacity	"	1,048,549	579,536	189,167	190,662	129,300	135,060	2,272,274
Maximum load	"	924,801	580,805	154,711	162,941	87,998	158,171	2,069,427

§ 4. Employment in Factories.

1. Number Engaged.—(i) *General.* All persons engaged in the manufacturing activities of a factory, including proprietors who work in their own business and "outworkers" (see par. 4 (ii) hereinafter) are counted as factory employees, while all those are excluded who are engaged in selling and distributing, such as salesmen, travellers, collectors, carters engaged solely on outward delivery of manufactured goods and retailing storemen. Employment has been classified as follows :—(i) Working proprietors; (ii) managers and overseers; (iii) accountants and clerks; (iv) engine-drivers and firemen; (v) skilled and unskilled workers in the factories, mills, or workshops; (vi) carters and messengers; and (vii) others.

Prior to the year 1928-29 employment in factories was computed by dividing the sum of the number engaged each week by the number of weeks worked. The figures, therefore, represented the average number engaged over the period worked, which,

for many factories, was less than a full year. Commencing with the year 1928-29 the figure represents the equivalent average number engaged over a full year of fifty-two weeks. The classification of factories according to the number of persons engaged (see § 2 *ante*), however, is still based on the old method, but for all other purposes the average number engaged over the full year is used.

(ii) *Australia, 1934-35 to 1943-44.* Particulars of the number employed, the increase in employment and the rate per cent. of such increase are given for years 1934-35 to 1943-44 in the following table:—

FACTORIES : EMPLOYMENT, AUSTRALIA.

Year.	Males.			Females.			Persons.		
	Number Em- ployed.	Increase on Previous Year.		Number Em- ployed.	Increase on Previous Year.		Number Em- ployed.	Increase on Previous Year.	
		Number.	Per cent.		Number.	Per cent.		Number.	Per cent.
	No.	No.	%	No.	No.	%	No.	No.	%
1934-35 ..	322,465	33,216	11.48	127,133	10,473	8.98	449,598	43,689	10.76
1935-36 ..	356,554	34,089	10.57	136,217	9,084	7.15	492,771	43,173	9.60
1936-37 ..	381,412	24,858	6.97	142,536	6,319	4.64	523,948	31,177	6.33
1937-38 ..	408,602	27,190	7.13	150,558	8,022	5.33	559,160	35,212	6.72
1938-39 ..	412,591	3,989	0.98	152,515	1,957	1.30	565,106	5,946	1.06
1939-40 ..	426,934	14,343	3.48	160,729	8,214	5.39	587,663	22,557	3.99
1940-41 ..	473,058	46,124	10.80	177,015	16,286	10.13	650,073	62,410	10.62
1941-42 ..	524,383	51,325	10.85	200,959	23,944	13.53	725,342	75,269	11.58
1942-43 ..	535,570	11,187	2.13	223,475	22,516	11.20	759,045	33,703	4.65
1943-44 ..	539,141	3,571	0.67	227,365	3,890	1.74	766,506	7,461	0.98

(iii) *States, 1938-39 and 1940-41 to 1943-44.* The following table shows, for each of the years 1938-39 and 1940-41 to 1943-44, (a) the average number of persons (including both sexes of all ages) engaged in manufacturing industries in each State; (b) for each State, the percentage of the total number engaged in Australia; and (c) the number engaged per ten thousand of the mean population in each State and Australia.

FACTORIES : EMPLOYMENT.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
AVERAGE NUMBER ENGAGED DURING FULL YEAR (52 WEEKS).							
1938-39 ..	228,781	201,831	54,110	43,371	23,211	13,802	565,106
1940-41 ..	265,751	237,636	57,269	50,844	22,734	15,839	650,973
1941-42 ..	298,245	258,400	61,909	65,252	23,980	17,556	725,342
1942-43 ..	315,524	262,358	64,292	72,748	25,813	18,310	759,045
1943-44 ..	323,032	261,331	64,682	69,569	28,101	19,791	766,506

PERCENTAGE ON AUSTRALIAN TOTAL.

	%	%	%	%	%	%	%
1938-39 ..	40.48	35.72	9.58	7.67	4.11	2.44	100.00
1940-41 ..	40.88	36.56	8.81	7.82	3.50	2.43	100.00
1941-42 ..	41.11	35.62	8.54	9.00	3.31	2.42	100.00
1942-43 ..	41.58	34.56	8.47	9.58	3.40	2.41	100.00
1943-44 ..	42.14	34.09	8.44	9.08	3.67	2.58	100.00

FACTORIES: EMPLOYMENT—*continued.*

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
PER 10,000 OF POPULATION.							
1938-39 ..	837	1,076	537	730	502	583	816
1940-41 ..	953	1,237	556	850	485	660	920
1941-42 ..	1,060	1,322	598	1,078	512	733	1,016
1942-43 ..	1,115	1,331	616	1,187	538	758	1,054
1943-44 ..	1,136	1,314	611	1,125	582	811	1,055

2. Rates of Increase, 1938-39 and 1940-41 to 1943-44.—The percentage increase on the average number of persons engaged in the preceding year is shown below for each State for 1938-39 and 1940-41 to 1943-44.

FACTORIES: ANNUAL PERCENTAGE INCREASE OF PERSONS ENGAGED.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	%	%	%	%	%	%	%
1938-39 ..	1.74	0.02	3.82	-1.62	0.34	4.80	1.06
1940-41 ..	12.14	11.86	3.11	12.86	-1.01	7.97	10.62
1941-42 ..	12.23	8.74	8.10	28.35	5.48	10.84	11.58
1942-43 ..	5.79	1.53	3.85	11.49	7.64	4.29	4.65
1943-44 ..	2.38	-0.39	0.61	-4.37	8.86	8.09	0.98

NOTE.—Minus sign (—) indicates decrease.

3. Persons Engaged in Classes of Industry.—(i) *Australia.* The following table gives the average number of persons engaged in factories under each industrial group in Australia for the years 1938-39 and 1940-41 to 1943-44.

FACTORIES: PERSONS ENGAGED IN INDUSTRIAL CLASSES, AUSTRALIA.

Class of Industry.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
I. Treatment of Non-metalliferous Mine and Quarry Products ..	10,343	10,554	9,970	8,001	7,701
II. Bricks, Pottery, Glass, etc. ..	15,709	16,159	15,126	10,428	9,616
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	19,816	32,528	47,019	54,101	42,551
IV. Industrial Metals, Machines, Implements and Conveyances ..	177,677	221,075	276,113	328,142	341,030
V. Precious Metals, Jewellery and Plate ..	3,726	4,046	3,708	2,358	2,373
VI. Textiles and Textile Goods ..	46,082	57,319	60,482	58,661	58,539
VII. Skins and Leather ..	10,767	12,737	12,629	12,056	12,708
VIII. Clothing ..	86,092	89,042	88,684	80,573	80,692
IX. Food, Drink and Tobacco ..	83,816	91,500	94,028	96,448	101,030
X. Woodworking and Basketware ..	39,739	33,851	35,129	33,058	34,827
XI. Furniture, Bedding, etc. ..	15,287	14,827	13,331	10,216	9,563
XII. Paper, Stationery, Printing, Book-binding, etc. ..	39,913	40,090	38,710	35,645	35,193
XIII. Rubber ..	7,502	8,431	9,022	7,178	7,961
XIV. Musical Instruments ..	451	524	532	392	353
XV. Miscellaneous Products ..	7,727	9,212	11,443	12,320	12,699
Total, Classes I. to XV. ..	555,677	641,895	716,826	750,177	757,436
XVI. Heat, Light and Power ..	9,429	8,178	8,516	8,868	9,070
Grand Total ..	565,106	650,073	725,342	759,045	766,506

From 1938-39 until 1941-42 employment increased in all industries, except "Furniture, Bedding, etc.", "Heat, Light and Power". Following the outbreak of war in the Pacific in 1941, the transfer of man-power to the more essential industries became

apparent, and industries not directly concerned with Australia's war effort showed a marked decline. The industries which declined were those connected with Class I., Mine and Quarry Products? Class II., Bricks, Pottery, Glass, etc.; Class V., Precious Metals; Class VIII., Clothing; Class XI., Furniture; and Class XII., Paper, etc., while industries where the war-time expansion in employment occurred were those connected with Class III., Chemicals, etc.; Class IV., Metals, etc.; Class VI., Textiles; Class VII., Skins and Leather; and Class IX., Food.

(ii) *States.* Particulars of the numbers engaged in each industrial class are shown in the following table for each State :—

FACTORIES : PERSONS ENGAGED IN INDUSTRIAL CLASSES, 1943-44.

Class of Industry.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.
I. Treatment of Non-metallic ferous Mine and Quarry Products	3,547	1,897	755	744	398	360	7,701
II. Bricks, Pottery, Glass, etc. ..	5,669	2,508	430	656	292	61	9,616
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	11,788	18,385	867	10,403	980	128	42,551
IV. Industrial Metals, Machines, Implements and Convey- ances	163,023	102,607	23,303	33,428	11,810	6,859	341,030
V. Precious Metals, Jewellery and Plate	857	1,164	120	155	65	12	2,373
VI. Textiles and Textile Goods ..	20,383	29,866	1,504	3,180	873	2,733	58,539
VII. Skins and Leather	6,016	4,458	1,035	442	549	208	12,708
VIII. Clothing	32,188	33,451	6,176	5,067	3,052	758	80,602
IX. Food, Drink and Tobacco ..	33,662	32,644	17,945	8,557	4,625	4,197	101,630
X. Woodworking and Basketware ..	12,815	8,847	6,580	2,105	2,508	1,972	34,827
XI. Furniture, Bedding, etc. ..	3,920	2,542	1,258	949	556	338	9,563
XII. Paper Stationery, Printing, Bookbinding, etc. ..	15,095	12,130	2,832	2,218	1,265	1,653	35,193
XIII. Rubber	4,005	3,132	448	193	101	82	7,961
XIV. Musical Instruments	262	43	17	23	8	..	353
XV. Miscellaneous Products ..	6,096	5,110	479	438	302	274	12,699
Total, Classes I. to XV.	319,326	258,784	63,749	68,558	27,384	19,635	757,436
XVI. Heat, Light and Power ..	3,706	2,547	933	1,011	717	156	9,070
Grand Total ..	323,032	261,331	64,682	69,569	28,101	19,791	766,506

4. Persons Engaged According to Nature of Employment.—(i) *General.* In the following table the average number of persons engaged in the States during 1943-44 are classified according to the nature of their employment :—

PERSONS ENGAGED : NATURE OF EMPLOYMENT, 1943-44.

State.	Average Number of Persons Engaged.						
	Working Pro- prietors.	Managers and Overseers.	Account- ants and Clerks.	Engine- drivers and Firemen.	Workers, Skilled & Unskilled. (a)	Carters, Messen- gers and Others.	Total.
New South Wales..	8,635	11,667	24,970	7,752	266,765	3,243	323,032
Victoria	7,906	9,776	18,880	2,011	220,216	2,542	261,331
Queensland	1,992	2,393	4,284	1,795	53,367	851	64,682
South Australia ..	1,527	2,483	5,763	580	58,660	556	69,569
Western Australia..	974	1,070	1,681	548	23,513	315	28,101
Tasmania	616	884	1,218	330	16,555	188	19,791
Australia	21,650	28,273	56,796	13,016	639,076	7,695	766,506

(a) Includes outworkers.



This map was re-drawn from that published in the Report of the Fifth Interstate Conference on Artesian Water, Sydney, 1928.

(ii) *Outworkers.* The term "outworker" or "homeworker" has acquired a special meaning in connexion with manufacturing industries, and technically embraces only those to whom work is given out by factory owners to be done in the employees' own homes. Individuals working for themselves are not included. The following table gives particulars of the average number of outworkers employed by factories in each State during the years 1938-39 and 1940-41 to 1943-44.

FACTORIES : OUTWORKERS.(a)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
1938-39 ..	201	120	6	11	7	11	356
1940-41 ..	164	173	9	6	4	7	363
1941-42 ..	469	191	10	17	4	11	702
1942-43 ..	534	196	5	17	12	8	772
1943-44 ..	531	289	4	19	12	7	862

(a) In all tables relating to number of hands employed in factories, outworkers are included.

The Factories Acts in each State contain provisions regulating the employment of outworkers. Records of outwork, specifying the names and remuneration of workers, and stating the places where the work is done, must be kept by factory proprietors.

5. *Monthly Employment, 1938-39 and 1941-42 to 1944-45.*—The number of persons employed in factories (excluding Working Proprietors) on the pay-day nearest to the 15th of each month is shown in the following table for the years 1938-39 and 1941-42 to 1944-45.

FACTORIES : MONTHLY EMPLOYMENT. AUSTRALIA.

Month.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45.
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MALES.

July ..	387,693	490,902	513,162	518,181	518,841
August ..	389,979	494,850	514,096	519,135	518,672
September ..	391,576	499,050	515,149	519,747	517,013
October ..	393,977	504,981	516,056	520,687	516,152
November ..	395,192	509,788	516,918	519,233	515,695
December ..	394,438	510,778	516,834	520,147	515,384
January ..	385,742	503,012	516,844	519,367	512,269
February ..	392,056	505,247	518,768	521,480	513,880
March ..	395,146	508,998	521,302	520,558	515,455
April ..	391,005	509,635	521,975	518,197	514,414
May ..	393,609	509,506	520,966	518,178	513,232
June ..	390,973	508,994	520,636	518,176	514,501
Mean ..	391,780	504,645	517,726	519,424	515,459

FEMALES.

July ..	147,282	187,842	212,392	227,382	217,633
August ..	149,294	190,269	213,100	228,134	216,491
September ..	151,159	187,555	214,123	229,206	215,491
October ..	152,473	195,690	216,418	229,104	213,686
November ..	152,806	198,168	218,026	228,373	212,604
December ..	151,165	198,704	220,328	226,958	211,507
January ..	141,853	195,851	220,838	223,991	207,464
February ..	151,883	201,727	223,938	223,900	210,401
March ..	154,854	204,725	227,681	225,144	212,206
April ..	152,614	204,892	229,748	222,457	209,147
May ..	150,693	205,860	228,203	218,648	207,556
June ..	148,601	206,035	228,600	217,430	206,335
Mean ..	150,390	198,110	221,120	225,060	211,710

FACTORIES: MONTHLY EMPLOYMENT, AUSTRALIA—continued.

Month.	1938-39.	1941-42.	1942-43.	1943-44.	1944-45
PERSONS.					
July	534,975	678,744	725,554	745,563	736,474
August	539,273	685,119	727,196	747,269	735,163
September	542,735	686,605	729,272	748,953	732,504
October	546,450	700,671	732,474	749,791	729,838
November	547,998	707,956	734,944	747,606	728,299
December	545,603	709,482	737,162	747,105	726,891
January	527,595	698,863	737,582	743,358	719,733
February	543,939	706,974	742,756	745,380	724,281
March	550,000	713,723	748,983	745,702	727,661
April	543,619	714,527	751,723	740,654	723,561
May	544,302	715,366	749,169	736,826	720,788
June	539,574	715,029	749,236	735,606	720,836
Mean	542,170	702,755	738,846	744,484	727,169

6. Distribution of Employees According to Age.—(i) *States.* The extension of statistics of employment in factories, decided upon at the Conference of Australian Statisticians held in March, 1937, now permits of a distribution of employees (excluding working proprietors) into three age-groups. The particulars are collected in June of each year and details showing the number employed in each age-group in June, 1944, are given below:—

FACTORIES: DISTRIBUTION OF EMPLOYEES ACCORDING TO AGE, JUNE, 1944.
(Excluding Working Proprietors.)

State.	Under 16 Years.		16 and under 21 Years.		Adults.		Total.	
	No.	%	No.	%	No.	%	No.	%
New South Wales ..	6,895	2.23	55,140	17.81	247,582	79.96	309,617	100
Victoria	8,762	3.52	39,200	15.73	201,426	80.75	249,388	100
Queensland	2,749	4.31	12,623	19.79	48,413	75.90	63,785	100
South Australia	2,252	3.42	9,633	14.64	53,914	81.94	65,799	100
Western Australia ..	1,109	4.03	5,875	21.33	20,565	74.64	27,549	100
Tasmania	792	4.07	3,363	17.27	15,313	78.66	19,468	100
 Australia	 22,559	 3.07	 125,834	 17.11	 587,213	 79.82	 735,606	 100

(ii) *Australia.* The following table shows the same age distribution in sexes for Australia in June, 1939 and 1941 to 1944:—

FACTORIES: DISTRIBUTION OF EMPLOYEES ACCORDING TO AGE, AUSTRALIA.
(Excluding Working Proprietors.)

In June —	Under 16 Years.		16 and under 21 Years.		Adults.		Total.	
	No.	%	No.	%	No.	%	No.	%
MALES.								
1939	16,109	4.12	76,418	19.55	298,446	76.33	390,973	100
1941	16,871	3.50	86,296	17.88	379,355	78.62	482,522	100
1942	16,135	3.17	68,507	13.46	424,352	83.37	508,994	100
1943	14,538	2.79	64,036	12.30	442,062	84.91	520,636	100
1944	13,114	2.53	64,990	12.54	440,972	84.93	518,176	100

FACTORIES: DISTRIBUTION OF EMPLOYEES ACCORDING TO AGE,
AUSTRALIA—*continued*.
(Excluding Working Proprietors.)

In June.	Under 16 Years.		16 and under 21 Years.		Adults.		Total.	
	No.	%	No.	%	No.	%	No.	%
FEMALES.								
1939	15,497	10.43	56,273	37.87	76,831	51.70	148,601	100
1941	15,120	8.25	65,724	35.87	102,386	55.88	183,230	100
1942	12,033	5.84	63,558	30.85	130,444	63.31	206,035	100
1943	9,897	4.33	63,646	27.84	155,057	67.83	228,600	100
1944	9,445	4.34	60,844	27.98	147,141	67.68	217,430	100
PERSONS.								
1939	31,606	5.86	132,691	24.59	375,277	69.55	539,574	100
1941	31,991	4.81	152,020	22.83	481,741	72.36	665,752	100
1942	28,168	3.94	132,065	18.47	554,796	77.59	715,029	100
1943	24,435	3.26	127,682	17.04	597,119	79.70	749,236	100
1944	22,559	3.07	125,834	17.11	587,213	79.82	735,606	100

§ 5. Sex Distribution in Factories.

1. Distribution According to Sex of Persons Engaged.—(i) *General.* In New South Wales the ratio of the number of females engaged in factories to the number of males during 1886 was about one to seven; in 1891 one to six; in 1903 it became about one to four; and in 1943-44 was more than two to five. In Victoria the ratio of females to males during the year 1886 was about one to five. Five years later (1891) it was somewhat less, but in 1896 had increased to about one to three, and in 1943-44 was about one to two. In the remaining States the ratio was roughly one female engaged to every four males, but the increase of female workers in war-time industry increased this ratio to just below one to three in all States except Queensland. For Australia as a whole the ratio decreased slightly and in 1943-44 was about two females to five males.

(ii) *Average Number of Males and Females Engaged, 1938-39 and 1940-41 to 1943-44.* The following table shows the average number of males and females engaged in factories in each State for 1938-39 and the four years 1940-41 to 1943-44:—

FACTORIES: MALES AND FEMALES ENGAGED.

State.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
MALES.					
New South Wales	167,172	194,194	216,856	223,669	226,824
Victoria	136,218	161,880	175,691	175,341	175,078
Queensland	43,941	46,567	49,695	50,325	50,822
South Australia	35,406	40,072	49,918	52,793	50,660
Western Australia	18,704	18,004	18,834	19,501	21,060
Tasmania	11,150	12,341	13,389	13,941	14,697
Australia	412,591	473,058	524,383	535,570	539,141
FEMALES.					
New South Wales	61,609	71,557	81,389	91,855	96,208
Victoria	65,613	75,756	82,709	87,017	86,253
Queensland	10,169	10,702	12,214	13,967	13,860
South Australia	7,965	10,772	15,334	19,955	18,909
Western Australia	4,507	4,730	5,140	6,312	7,041
Tasmania	2,652	3,498	4,167	4,369	5,094
Australia	152,515	177,015	200,959	223,475	227,365

2. Rate of Variation for each Sex.—The percentages of increase or decrease on the average numbers of males and females engaged in the preceding year are shown below for the years indicated :—

ANNUAL PERCENTAGE INCREASES OF MALES AND FEMALES ENGAGED.

State.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
MALES.					
	%	%	%	%	%
New South Wales ..	1.69	12.73	11.67	3.14	1.42
Victoria ..	0.04	13.01	8.53	— 0.20	— 0.15
Queensland ..	3.79	3.42	6.72	1.27	1.11
South Australia ..	— 2.39	10.31	24.57	5.76	— 4.04
Western Australia ..	— 0.30	— 1.78	4.61	3.54	8.00
Tasmania ..	4.40	4.99	8.49	4.12	5.42
Total ..	0.98	10.80	10.85	2.16	0.67
FEMALES.					
New South Wales ..	1.88	10.57	13.74	12.86	4.74
Victoria ..	— 0.03	9.44	9.18	5.21	— 0.88
Queensland ..	3.96	1.78	14.13	14.35	— 0.77
South Australia ..	1.98	23.48	42.35	30.14	— 5.24
Western Australia ..	3.06	2.03	8.79	22.66	11.55
Tasmania ..	6.51	19.96	19.13	4.85	16.59
Total ..	1.30	10.13	13.53	11.20	1.74

NOTE.—The minus sign (—) indicates decrease.

3. Masculinity of Persons Engaged in Factories.—The extent to which females are engaged in the factories of Australia may perhaps be more clearly shown by giving the masculinity of persons engaged in each State. The following table shows particulars for the years 1938-39 and 1940-41 to 1943-44 :—

FACTORIES : MASCULINITY(a) OF PERSONS ENGAGED.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
1938-39 ..	271	208	432	445	415	420	271
1940-41 ..	271	214	435	372	381	353	267
1941-42 ..	266	212	407	326	366	321	261
1942-43 ..	244	202	360	265	309	319	240
1943-44 ..	236	203	367	268	299	289	237

(a) Number of males per 100 females.

For a number of years prior to 1926-27 there were on the average 300 males engaged in factories for every 100 females, but in that year the proportion of males began to fall with the increasing activity in the clothing and textile industries, in which the number of females to males is relatively high. As these trades were not so seriously affected by the depression as the heavier industries, the proportion of males continued to fall, until in 1932-33 there were only 239 males engaged to every 100 females. With the recovery of employment in the heavier industries subsequent to that year, the proportion of males per 100 females had increased to 271 in 1937-38 and 1938-39 but fell again to 237 in 1943-44.

The decrease in masculinity since 1938-39 was the result of the enlistment of men in the armed services and the expansion of industry caused by the war. In many industries the younger men were released for service in the defence forces and large numbers of women were absorbed as an adjustment to the industrial effort of Australia.

4. **Employment of Females in Particular Industries.**—(i) *General.* The greater number of females in manufacturing industries are engaged in four classes, namely:—IV., Industrial Metals, Machines, etc.; VI., Textiles; VIII., Clothing; and IX., Food, Drink and Tobacco. In 1943-44 these industries accounted for 80.08 per cent. of all females in factories. In two classes only did the number of females exceed the number of males, namely, in Class VI., Textiles, where there were 162 females to every 100 males and in Class VIII., Clothing, with 289 females per 100 males. The following tables show the average number of males and females engaged in each of these classes in 1943-44:—

MALES AND FEMALES ENGAGED IN PARTICULAR INDUSTRIES, 1943-44.

Class.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
MALES.							
IV. Industrial Metals, etc. ..	134,749	86,065	20,531	28,416	9,961	6,143	285,865
VI. Textiles and Textile Goods ..	6,911	11,751	569	1,675	403	1,039	22,348
VIII. Clothing ..	8,278	9,108	1,275	1,266	647	230	20,744
IX. Food, Drink and Tobacco ..	21,467	22,281	15,022	6,109	3,296	2,695	70,870
All Other Classes ..	55,419	45,873	13,425	13,254	6,753	4,590	139,314
Total ..	226,824	175,078	50,822	50,660	21,060	14,697	539,141
FEMALES							
IV. Industrial Metals, etc. ..	28,274	16,542	2,772	5,012	1,849	716	55,165
VI. Textiles and Textile Goods ..	13,472	18,115	935	1,505	470	1,694	36,191
VIII. Clothing ..	23,910	24,343	4,901	3,861	2,405	528	59,948
IX. Food, Drink and Tobacco ..	12,195	10,363	2,923	2,448	1,329	1,502	30,760
All Other Classes ..	18,357	16,890	2,329	6,083	988	654	45,301
Total ..	96,208	86,253	13,860	18,909	7,041	5,094	227,365

(ii) *Females Engaged in Clothing Trade.*—The employment of females in the several industries of Class VIII., Clothing, which is the most important group, and the relation of their number to that of the males so engaged are shown in the following table:—

FEMALES ENGAGED IN EACH INDUSTRY IN CLASS VIII., 1943-44.

Industry.	New South Wales.			Victoria.			Other States.		
	Males.	Females.	Femini- nity. (a)	Males.	Females.	Femini- nity. (a)	Males.	Females.	Femini- nity. (a)
Tailoring and Ready-made Clothing ..	1,802	10,819	600	1,531	6,050	395	933	4,737	508
Waterproof and Oil-skin Clothing ..	11	60	545	98	290	296	..	..	..
Dressmaking ..	28	1,423	5,082	548	7,110	1,297	65	2,370	3,646
Millinery ..	98	898	916	72	651	904	38	521	1,371
Shirts, Collars and Underclothing ..	307	4,035	1,314	259	3,008	1,161	141	1,966	1,394
Stays and Corsets ..	65	613	943	69	527	764	9	133	1,418
Handkerchiefs, Ties and Scarves ..	73	553	757	25	209	836	..	..	..
Hats and Caps ..	562	730	130	554	533	96	26	158	607
Gloves ..	37	209	565	65	409	629	19	145	763
Boots and Shoes ..	2,876	2,903	101	4,337	4,086	94	1,308	988	76
Boot Repairing (including Bespoke Work) ..	1,266	112	9	641	32	5	511	49	10
Boot Accessories ..	243	139	57	121	140	118	4	..	..
Umbrellas and Walking Sticks ..	18	36	200	8	15	188	4	12	300
Dyeworks and Cleaning (including Renovating and Repairing) ..	850	1,167	137	708	863	122	299	614	205
Other ..	42	213	507	72	420	583	1	2	200
Total ..	8,278	23,910	289	9,108	24,343	267	3,358	11,695	348

(a) Number of females per 100 males.

§ 6. Child Labour in Factories.

1. **Conditions of Child Labour.**—The employment of young persons in factories in the States is regulated by Acts of Parliament, as is the case with the employment of female labour. The object of the restrictions imposed is to ensure amongst other things that a proper period shall be devoted to primary education, and that the early years of labour shall not exhaust the worker before the attainment of full growth.

2. **Number of Children Engaged, 1939 and 1941 to 1944.**—In the returns for the various States, the term "child" denotes any person under sixteen years of age. The decline in the number of children employed from the peak of 33,553 reached in June, 1940, to 22,559 in June, 1944, which is most marked, particularly in New South Wales, was probably caused by several factors including (i) the raising of the school leaving age in New South Wales (ii) fewer children available for employment owing to the decline in the birth rate which occurred about 1929 and (iii) the high level of employment which enabled parents to keep their children at school beyond the statutory leaving age.

The following table shows the number of children of each sex employed in manufacturing industries in June of the years 1939 and 1941 to 1944.

FACTORIES : CHILDREN ENGAGED, JUNE.

State.	1939.	1941.	1942.	1943.	1944.
MALES.					
New South Wales ..	5,759	5,901	5,125	4,221	3,881
Victoria	6,167	5,775	5,458	5,251	5,031
Queensland	1,790	2,113	2,526	2,126	1,732
South Australia ..	1,296	1,732	1,593	1,506	1,232
Western Australia ..	705	822	880	878	753
Tasmania	392	528	553	556	485
Australia	16,109	16,871	16,135	14,538	13,114
FEMALES.					
New South Wales ..	7,084	6,799	4,668	3,158	3,014
Victoria	5,005	4,664	3,754	3,477	3,731
Queensland	1,334	1,325	1,503	1,308	1,017
South Australia ..	1,053	1,303	1,280	1,206	1,020
Western Australia ..	521	553	456	404	356
Tasmania	500	416	372	344	307
Australia	15,497	15,120	12,033	9,897	9,445
TOTAL.					
New South Wales ..	12,843	12,700	9,793	7,379	6,895
Victoria	11,172	10,439	9,212	8,728	8,762
Queensland	3,124	3,438	4,029	3,434	2,749
South Australia ..	2,349	3,095	2,873	2,712	2,252
Western Australia ..	1,226	1,375	1,336	1,282	1,109
Tasmania	892	944	925	900	792
Australia	31,606	31,991	28,168	24,435	22,559

3. **Percentage of Children on Total Number of Persons Engaged.**—The following table shows the percentage of children on the total number of persons engaged in the various States for June of each of the five years 1939 and 1941 to 1944. In 1944 the percentage was highest in Queensland and lowest in New South Wales.

PERCENTAGE OF CHILDREN ON TOTAL NUMBER OF PERSONS ENGAGED.
(Excluding Working Proprietors.)

State.	June—				
	1939.	1941.	1942.	1943.	1944.
	%	%	%	%	%
New South Wales ..	5.85	4.64	3.33	2.35	2.23
Victoria ..	5.81	4.32	3.69	3.43	3.52
Queensland ..	6.01	6.26	6.55	5.35	4.31
South Australia ..	5.78	5.48	4.14	3.81	3.42
Western Australia ..	5.61	6.17	5.74	4.79	4.03
Tasmania ..	6.78	5.68	5.40	4.75	4.07
Australia ..	5.86	4.81	3.94	3.26	3.07

4. Industries Employing Child Labour.—The distribution of children employed in factories in June, 1944, and the percentage on the total number employed are given in the following table according to the class of industry:—

FACTORIES : CHILDREN EMPLOYED, BY CLASSES, JUNE, 1944.

Class of Industry.	Children Employed.		Total Number Employed.(a)		Percentage of Children on Total Number Employed.(a)	
	Males.	Females.	Males.	Females.	Males.	Females.
	No.	No.	No.	No.	%	%
I. Treatment of Non-metaliferous Mine and Quarry Products ..	117	15	6,980	425	1.68	3.53
II. Bricks, Pottery, Glass, etc. ..	206	40	8,438	1,164	2.44	3.44
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	376	358	24,742	13,093	1.52	2.73
IV. Industrial Metals, Machines, Implements and Conveyances ..	6,207	1,177	276,493	51,406	2.24	2.29
V. Precious Metals, Jewellery and Plate ..	75	24	1,444	583	5.19	4.12
VI. Textiles and Textile Goods ..	867	1,662	22,221	34,701	3.90	4.79
VII. Skins and Leather ..	182	115	8,879	3,334	2.05	3.45
VIII. Clothing ..	644	3,878	17,793	60,088	3.62	6.45
IX. Food, Drink and Tobacco ..	1,660	1,116	68,032	29,555	2.41	3.78
X. Woodworking and Basketware ..	1,069	82	31,114	1,869	3.44	4.39
XI. Furniture, Bedding, etc. ..	539	60	6,984	1,910	7.72	3.14
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	758	714	21,672	12,392	3.50	5.76
XIII. Rubber ..	114	31	5,828	2,041	1.96	1.52
XIV. Musical Instruments ..	11	4	237	100	4.64	4.00
XV. Miscellaneous Products ..	232	168	7,320	4,662	3.17	3.60
Total, Classes I. to XV. ..	13,057	9,444	509,077	217,323	2.56	4.35
XVI. Heat, Light and Power ..	57	1	9,099	107	0.63	0.93
Grand Total ..	13,114	9,445	518,176	217,430	2.53	4.34

(a) Excludes Working Proprietors.

5. Apprenticeship.—In all the States, Acts are in force for the regulation of the age at which children may be employed in gainful occupations. Legislative provision is also made for the regulation of apprenticeship under the various State Factories Acts or Arbitration Acts. These Acts, while laying down general principles, leave to the wages tribunals the actual determination of the conditions under which apprentices may be employed.

§ 7. Salaries and Wages Paid and Value of Production.

NOTE.—In all tables relating to salaries and wages paid in factories the amounts drawn by working proprietors are excluded.

1. General.—The importance of the manufacturing industries of Australia is indicated by the fact that the total value of the output for 1943-44 was £891,739,216, of which amount £498,923,060 represented the value of the materials used, including containers, etc., tools replaced and repairs to plant and buildings, and £26,580,669 the value of the power, fuel and light used. The difference between the sum of the last two amounts and the value of the output, namely £366,235,487, represents the value of production as defined by the Conference of Statisticians at Sydney in 1925, i.e., "the value of consumable commodities produced during the year, deducting so far as possible, the value of goods consumed in process of production." The total amount of salaries and wages paid in factories in 1943-44 was £216,873,819. This figure, which excludes amounts drawn by working proprietors, shows an increase of £8,006,976 or 3.8 per cent. on that for the previous year.

2. Salaries and Wages Paid.—(i) *In Classes of Industry, 1943-44.* The amounts of salaries and wages paid in the various classes of industry in each State are shown in the following table:—

FACTORIES : SALARIES AND WAGES PAID, 1943-44.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	1,148,169	604,014	224,171	216,196	109,441	100,187	2,402,178
II. Bricks, Pottery, Glass etc. ..	1,728,805	698,167	112,213	178,135	74,529	13,399	2,805,248
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	3,355,961	5,775,765	239,603	2,952,993	273,705	33,911	12,631,958
IV. Industrial Metals, Machines, Implements and Conveyances ..	53,452,436	33,412,978	7,369,867	9,914,890	3,594,201	2,216,661	109,961,033
V. Precious Metals, Jewellery and Plate ..	206,858	286,938	23,544	33,053	13,477	2,024	565,894
VI. Textiles and Textile Goods ..	4,452,895	6,836,102	260,688	753,920	179,571	608,041	13,091,307
VII. Skins and Leather ..	1,667,485	1,277,226	295,308	101,352	142,360	57,584	3,541,309
VIII. Clothing ..	6,019,012	6,612,472	998,515	807,104	450,763	113,690	15,001,556
IX. Food, Drink and Tobacco ..	8,736,706	8,897,101	5,365,531	2,033,386	1,178,898	941,381	27,153,003
X. Woodworking and Basketware ..	3,441,190	2,411,445	1,641,465	508,443	643,095	443,189	9,088,827
XI. Furniture, Bedding, etc. ..	1,035,306	571,521	304,758	199,020	111,539	58,021	2,280,165
XII. Paper, Stationery, Printing, Book-binding, etc. ..	4,071,188	3,209,316	696,065	544,550	314,908	478,848	9,314,875
XIII. Rubber ..	1,231,519	1,019,014	88,722	43,544	23,429	14,191	2,420,419
XIV. Musical Instruments ..	71,356	11,296	4,687	5,649	2,088	..	95,076
XV. Miscellaneous Products ..	1,493,616	1,364,043	114,711	88,771	65,154	60,280	3,186,575
Total, Classes I. to XV.	92,112,502	74,987,482	17,739,848	18,381,006	7,177,158	5,141,407	213,539,403
XVI. Heat, Light and Power ..	1,405,824	973,711	331,841	330,407	240,437	52,196	3,334,416
Grand Total ..	93,518,326	75,961,193	18,071,689	18,711,413	7,417,595	5,193,603	216,873,819

(ii) *Totals and Averages, 1938-39 and 1940-41 to 1943-44.* The following statement shows the total amount of salaries and wages paid, and the average amount paid per employee in each State, for each of the years 1938-39 and 1940-41 to 1943-44. The average wage paid is not comparable with that shown in similar tables in issues of the

Official Year Book prior to No. 23, 1930, on account of the change in the method of computing the average number of hands employed, as explained earlier. The figures exclude working proprietors and the amounts drawn by them:—

FACTORIES : TOTAL AND AVERAGE SALARIES AND WAGES PAID.

Year.	Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
		£	£	£	£	£	£	£
1938-39	Total amount paid ..	44,606,497	36,026,542	10,887,229	8,169,350	4,573,558	2,479,886	106,743,062
	Average per employee ..	201.77	185.64	210.78	195.57	207.90	188.31	196.31
1940-41	Total amount paid ..	57,759,532	49,790,607	12,163,763	10,418,901	4,720,563	3,059,702	137,919,068
	Average per employee ..	224.14	216.45	221.12	211.70	218.77	201.42	219.38
1941-42	Total amount paid ..	75,757,059	64,363,277	14,476,768	16,234,164	5,499,568	3,720,770	180,052,212
	Average per employee ..	261.13	256.43	242.17	254.84	240.00	210.72	255.60
1942-43	Total amount paid ..	88,900,820	73,035,253	16,737,515	19,243,290	6,477,113	4,472,816	208,866,843
	Average per employee ..	289.12	286.21	268.64	270.10	260.74	252.73	282.73
1943-44	Total amount paid ..	93,518,326	73,961,193	18,071,689	18,711,413	7,417,595	5,193,603	216,873,819
	Average per employee ..	297.45	291.85	288.27	275.00	373.44	270.85	291.16

In comparing the figures in the preceding table, regard should be paid to the nature of certain industries which are carried on to a greater extent in some States than in others. In Victoria, for instance, there is a large number of hands employed in Class VIII., Clothing, comprising a high percentage of women and children. The highest average wages per employee in 1943-44 were paid in New South Wales, Victoria and Queensland in that order.

Since 1933-34 the average earnings per employee have risen each year and in 1943-44 attained a record high level as a result of war-time conditions.

(iii) *Earnings of Males and Females, 1943-44.* The following table shows the approximate amount of salaries and wages paid to males and females in each class of industry in each State during the year 1943-44:—

SALARIES AND WAGES : MALE AND FEMALE FACTORY EMPLOYEES, 1943-44.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
MALES.							
	£	£	£	£	£	£	£
I. Treatment of Non-metaliferous Mine and Quarry Products ..	1,121,914	577,980	219,137	208,556	106,821	98,892	2,333,300
II. Bricks, Pottery, Glass etc. ..	1,615,724	636,095	107,001	172,246	70,044	12,927	2,614,037
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	2,727,444	4,295,314	204,421	2,025,119	253,408	31,666	9,537,372
IV. Industrial Metals, Machines, Implements and Conveyances ..	47,860,346	29,926,635	6,835,432	8,940,792	3,213,382	2,051,652	98,828,239
V. Precious Metals, Jewellery and Plate ..	167,382	218,303	20,743	29,693	12,271	1,690	450,082
VI. Textiles and Textile Goods ..	2,262,220	3,830,747	146,054	513,240	114,374	327,360	7,193,995
VII. Skins and Leather ..	1,363,771	1,075,233	277,051	70,228	127,208	55,731	2,909,315
VIII. Clothing ..	2,254,843	2,595,955	315,506	285,121	150,314	46,656	5,648,395
IX. Food, Drink and Tobacco ..	6,779,169	7,266,159	4,947,098	1,706,825	1,007,106	735,477	22,441,834
X. Woodworking and Basketware ..	3,306,411	2,329,227	1,589,010	491,224	639,382	433,477	8,788,731
XI. Furniture, Bedding, etc. ..	885,031	481,543	274,257	175,444	96,639	54,575	1,967,489
XII. Paper, Stationery, Printing, Book-binding, etc. ..	3,145,181	2,552,169	548,497	437,156	255,506	430,659	7,369,168
XIII. Rubber ..	1,012,193	876,789	75,373	38,677	21,927	12,604	2,037,563
XIV. Musical Instruments ..	54,558	11,216	4,687	5,031	2,088	..	77,580
XV. Miscellaneous Products ..	1,135,079	969,236	88,217	71,323	57,350	20,197	2,350,398
Total, Classes I. to XV.	75,091,266	57,612,601	15,052,181	15,170,675	6,127,910	4,322,562	174,607,498
XVI. Heat, Light and Power ..	1,390,068	908,113	311,811	120,191	230,177	51,721	3,116,126
Grand Total ..	77,087,331	58,610,714	15,984,325	15,499,866	6,367,387	4,374,283	177,923,924

SALARIES AND WAGES: MALE AND FEMALE FACTORY EMPLOYEES,
1943-44—*continued.*

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
FEMALES.							
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	26,255	26,034	5,034	7,640	2,620	1,295	68,878
II. Bricks, Pottery, Glass, etc. ..	113,081	62,072	5,212	5,889	4,485	472	191,211
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	628,517	1,480,451	35,182	927,874	20,297	2,245	3,094,566
IV. Industrial Metals, Machines, Implements and Conveyances ..	5,592,090	3,486,343	534,435	974,098	380,819	165,009	11,132,794
V. Precious Metals, Jewellery and Plate ..	39,476	68,635	2,801	3,360	1,206	334	115,812
VI. Textiles and Textile Goods ..	2,190,675	3,005,445	114,634	240,680	65,197	280,681	5,897,312
VII. Skins and Leather ..	393,714	201,987	18,257	31,124	15,062	1,850	571,994
VIII. Clothing ..	3,764,169	4,016,517	683,009	521,983	300,449	67,034	9,353,161
IX. Food, Drink and Tobacco ..	1,957,537	1,630,942	418,433	326,561	171,792	205,904	4,711,169
X. Woodworking and Basketware ..	134,779	82,218	52,455	17,219	3,713	9,712	300,096
XI. Furniture, Bedding, etc. ..	150,275	89,978	30,501	23,576	14,900	3,446	312,676
XII. Paper, Stationery, Printing, Book-binding, etc. ..	926,007	657,147	147,568	107,394	59,402	48,189	1,945,707
XIII. Rubber ..	219,326	142,225	13,349	4,867	1,502	1,587	382,856
XIV. Musical Instruments ..	16,798	80	..	618	..	..	17,496
XV. Miscellaneous Products ..	358,537	394,807	26,494	17,448	7,804	31,087	836,177
Total, Classes I. to XV.	16,421,216	15,344,881	2,087,364	3,210,331	1,049,248	818,845	38,931,905
XVI. Heat, Light and Power ..	9,756	5,598	..	1,216	960	460	17,990
Total	16,430,992	15,350,479	2,087,364	3,211,547	1,050,208	819,305	38,949,895

(iv) *Total and Average Earnings of Males and Females, 1938-39 and 1940-41 to 1943-44.* Particulars for these years are given in the table hereunder:—

TOTAL AND AVERAGE SALARIES AND WAGES: MALES AND FEMALES.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
MALES.							
1938-39. Amount paid ..£	38,271,867	29,005,746	9,920,001	7,487,828	4,128,824	2,234,413	91,048,679
Per cent. on total ..	85.80	80.51	91.12	91.66	90.28	90.10	85.30
Average per employee £	239.24	224.47	238.59	220.95	235.49	212.09	231.84
1940-41. Amount paid ..£	49,539,287	40,389,071	11,076,635	9,340,490	4,241,954	2,687,453	117,274,890
Per cent. on total ..	85.77	81.11	91.06	89.65	89.86	87.83	85.03
Average per employee £	265.35	260.54	249.91	242.30	251.14	229.34	258.77
1941-42. Amount paid ..£	64,850,115	52,180,184	13,059,246	14,185,487	4,928,138	3,238,504	152,441,674
Per cent. on total ..	85.60	81.07	90.21	87.38	89.61	87.04	84.67
Average per employee £	309.85	308.76	274.06	292.68	276.88	253.09	301.86
1942-43. Amount paid ..£	74,554,677	58,089,270	14,939,988	16,118,870	5,650,928	3,876,990	173,230,723
Per cent. on total ..	83.86	79.54	89.26	83.76	87.24	86.68	82.94
Average per employee £	344.72	344.06	308.49	313.74	304.34	290.30	335.17
1943-44. Amount paid ..£	77,087,334	58,610,714	15,984,325	15,499,866	6,367,387	4,374,298	177,923,924
Per cent. on total ..	82.43	79.25	88.45	82.84	85.84	84.22	82.04
Average per employee £	352.15	349.02	326.70	314.99	316.28	310.15	342.68

TOTAL AND AVERAGE SALARIES AND WAGES: MALES AND FEMALES

—continued.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
FEMALES.							
1938-39. Amount paid ..£	6,334,630	7,020,796	967,228	681,522	444,734	245,473	15,694,383
Per cent. on total ..	14.20	19.49	8.88	8.34	9.72	9.90	14.70
Average per employee £	103.66	108.25	96.00	86.44	99.58	93.19	103.92
1940-41. Amount paid ..£	8,220,245	9,407,536	1,087,128	1,078,411	478,609	372,249	20,644,177
Per cent. on total ..	14.23	18.89	8.94	10.35	10.14	12.17	14.97
Average per employee £	115.79	125.37	102.43	101.13	102.11	107.18	117.65
1941-42. Amount paid ..£	10,907,541	12,183,093	1,417,522	2,048,677	571,430	482,275	27,610,538
Per cent. on total ..	14.40	18.93	9.79	12.62	10.39	12.96	15.33
Average per employee £	134.96	148.57	116.85	134.47	111.89	116.55	138.44
1942-43. Amount paid ..£	14,346,149	14,945,983	1,797,557	3,124,420	826,185	595,826	35,636,120
Per cent. on total ..	16.14	20.46	10.74	16.24	12.76	13.32	17.06
Average per employee £	157.29	173.10	129.55	157.27	131.79	137.19	160.59
1943-44. Amount paid ..£	16,430,992	15,350,479	2,087,364	3,211,547	1,050,208	819,305	38,949,895
Per cent. on total ..	17.57	20.75	11.55	17.16	14.16	15.78	17.96
Average per employee £	172.07	179.65	151.65	169.77	150.14	161.57	171.30

(v) *Managers, Overseers and Other Employees.* A further analysis of salaries and wages paid is given in the following table and shows the amounts paid to managers, overseers, etc., and those paid to other employees. As previously mentioned, amounts drawn by working proprietors are excluded in all cases :—

SALARIES AND WAGES: MANAGERS, OVERSEERS, ETC., AND OTHER EMPLOYEES, 1943-44.

Class of Industry.	Salaries and Wages Paid to—						
	Managers, Overseers, Accountants and Clerks.		All Other Employees.		All Employees.		
	Males.	Females.	Males.	Females.	Males.	Females.	Total.
	£	£	£	£	£	£	£
I. Treatment of Non-metaliferous Mine and Quarry Products ..	333,054	45,376	2,000,246	23,502	2,333,300	68,878	2,402,178
II. Bricks, Pottery, Glass, etc. ..	316,105	62,256	2,297,932	128,955	2,614,037	191,211	2,805,248
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	1,642,966	486,976	7,894,406	2,607,590	9,537,372	3,094,566	12,631,938
IV. Industrial Metals, Machines, Implements and Conveyances ..	12,669,375	2,908,469	86,158,864	8,224,325	98,828,239	11,132,794	109,961,033
V. Precious Metals, Jewellery and Plate ..	57,810	26,784	392,272	89,028	450,082	115,812	565,894
VI. Textiles and Textile Goods ..	1,162,741	364,399	6,031,254	5,532,913	7,193,995	5,897,312	13,091,307
VII. Skins and Leather ..	338,483	58,726	2,630,832	513,268	2,969,315	571,994	3,541,309
VIII. Clothing ..	909,296	565,156	4,739,099	8,788,395	5,648,395	9,353,161	15,001,556
IX. Food, Drink, and Tobacco ..	3,567,321	887,119	18,874,513	3,824,050	22,441,834	4,711,169	27,153,003
X. Woodworking and Basketware ..	917,226	175,068	7,871,505	125,028	8,788,731	300,096	9,088,827
XI. Furniture, Bedding, etc. ..	216,192	73,731	1,751,297	238,945	1,967,489	312,676	2,280,165
XII. Paper, Stationery, Printing, Book-binding, etc. ..	1,374,018	460,344	5,995,150	1,485,363	7,369,168	1,945,707	9,314,875
XIII. Rubber ..	426,285	89,852	1,611,278	293,004	2,037,563	382,856	2,420,419
XIV. Musical Instruments ..	13,817	8,817	63,763	8,679	77,580	17,496	95,076
XV. Miscellaneous Products ..	370,271	120,435	1,980,127	715,742	2,350,398	836,177	3,186,575
Total, Classes I. to XV.	24,314,960	6,333,508	150,292,538	32,598,397	174,007,498	38,031,905	213,539,403
XVI. Heat, Light and Power ..	540,582	14,908	2,775,844	3,082	3,316,426	17,990	3,334,416
Grand Total ..	24,855,542	6,348,416	153,068,382	32,601,479	177,923,924	38,049,895	216,873,819
Average paid per employee	483.77	188.44	327.18	169.84	342.68	172.62	291.16

3. Power, Fuel and Light Used.—(i) *In Classes of Industry, 1943-44.* The expenditure by factories on power, fuel and light is of considerable importance; in 1943-44 it amounted to £26,580,669, an increase of £954,147 as compared with the previous year. The following table shows the value of power, fuel and light used in the different classes of industry in 1943-44 :—

FACTORIES : VALUE OF POWER, FUEL AND LIGHT USED (a), 1943-44.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metaliferous Mine and Quarry Products ..	348,450	235,645	94,008	88,298	45,537	64,880	876,818
II. Bricks, Pottery, Glass, etc. ..	495,270	293,897	35,566	82,615	43,553	3,319	954,220
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	515,507	590,743	41,151	381,350	53,503	6,006	1,588,260
IV. Industrial Machines, Implements and Conveyances ..	5,818,617	1,379,736	295,003	617,851	197,351	340,831	8,649,389
V. Precious Metals, Jewellery and Plate ..	11,353	17,004	1,022	4,514	433	112	34,438
VI. Textiles and Textile Goods ..	319,100	608,432	20,560	91,989	14,758	43,376	1,008,224
VII. Skins and Leather ..	144,416	115,823	30,383	3,054	22,740	11,141	334,187
VIII. Clothing ..	172,705	203,453	21,887	23,388	11,739	3,568	436,740
IX. Food, Drink and Tobacco ..	1,560,311	1,396,615	820,875	428,357	287,463	140,503	4,634,124
X. Woodworking and Basketware ..	209,799	126,346	79,005	28,550	45,613	33,013	522,326
XI. Furniture, Bedding, etc. ..	30,554	17,702	8,334	7,978	3,061	1,678	69,307
XII. Paper, Stationery, Printing, Book-binding etc. ..	222,808	347,103	32,643	70,376	15,649	190,175	878,754
XIII. Rubber ..	138,265	176,747	12,179	5,392	3,427	1,977	337,987
XIV. Musical Instruments ..	6,100	437	63	36	6	..	6,642
XV. Miscellaneous Products ..	77,476	49,341	2,768	7,291	1,419	2,008	140,303
Total, Classes I. to XV.	10,070,761	5,889,024	1,501,456	1,841,639	740,252	842,587	20,561,719
XVI. Heat, Light and Power ..	2,737,279	1,267,718	660,657	594,410	757,092	1,794	6,018,950
Grand Total ..	12,808,040	6,826,742	2,162,113	2,436,049	1,503,344	844,381	26,580,669

(a) Includes value of lubricants and water.

(ii) *Values of Items, 1943-44.* The following table shows the values of the various items of power, fuel and light used in factories in each State during the year 1943-44 :—

FACTORIES : VALUE OF ITEMS OF POWER, FUEL AND LIGHT USED (a), 1943-44.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
Coal	3,907,140	2,646,154	1,034,117	821,140	333,249	124,755	8,866,555
Coke	2,361,577	270,186	43,436	105,236	48,115	8,096	2,836,646
Wood	211,623	337,134	187,840	175,253	256,518	157,609	1,325,977
Other (Charcoal, etc.) ..	211,441	163,195	29,249	98,775	14,295	6,617	523,572
Fuel Oil	1,119,860	575,281	192,155	272,465	429,008	55,839	2,644,608
Gas	1,011,387	209,735	30,927	79,185	20,679	36,232	1,388,145
Electricity	3,042,900	1,975,703	428,765	703,566	284,282	396,313	6,831,529
Water and Lubricating Oil ..	942,112	649,354	215,624	180,429	117,198	58,920	2,163,637
Total	12,808,040	6,826,742	2,162,113	2,436,049	1,503,344	844,381	26,580,669

(a) Includes value of lubricants and water.

(iii) *Quantities of Fuel used, 1943-44.* The following table shows the quantities of items of fuel used in factories in each State during the year 1943-44 :—

FACTORIES : QUANTITIES OF FUEL USED, 1943-44.

Particulars.	Unit.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Coal	Ton	3,036,600	4,930,756	634,871	383,661	215,241	75,356	9,276,485
Coke	"	1,599,071	130,713	23,221	41,341	17,908	4,004	1,816,258
Wood	"	169,482	432,073	240,556	154,557	341,980	160,401	1,499,049
Fuel Oil	Gal	22,718,008	11,870,738	3,230,128	5,009,117	7,624,873	575,436	52,027,390

(iv) *Total Value, 1938-39 and 1940-41 to 1943-44.* The next table gives the sums expended on power, fuel and light during the years 1940-41 to 1943-44 compared with 1938-39:—

FACTORIES : VALUE OF POWER, FUEL AND LIGHT USED.(a)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
1938-39 ..	7,651,627	3,999,934	1,423,519	1,017,537	1,160,268	438,006	15,699,921
1940-41 ..	9,000,123	5,138,787	1,055,937	1,400,085	1,304,718	507,429	19,722,717
1941-42 ..	11,228,813	6,144,579	1,915,087	2,066,010	1,399,228	705,746	23,459,463
1942-43 ..	12,107,663	6,514,447	2,105,774	2,460,301	1,437,624	791,713	25,626,522
1943-44 ..	12,808,040	6,826,742	2,162,113	2,436,040	1,503,344	844,381	26,580,669

(a) Includes value of lubricants and water.

4. *Value of Materials Used.—(i) In Classes of Industry, 1943-44.* The value of materials used (which includes the value of containers, packing, etc., the cost of tools replaced and repairs to plant) in factories in Australia in 1943-44 was £498,923,060, representing 55.95 per cent. of the value of the final output (see par. 5). The following table shows the value of the materials used in various classes of industry in each State:—

FACTORIES : VALUE OF MATERIALS USED, 1943-44.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	3,897,779	1,109,183	526,449	345,712	178,714	172,202	6,230,039
II. Bricks, Pottery, Glass, etc.	1,354,168	508,832	59,742	159,442	50,815	11,021	2,144,020
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	14,152,671	12,196,141	966,808	5,360,316	1,425,026	196,267	34,297,229
IV. Industrial Metals, Machines, Implements and Conveyances ..	95,454,529	37,852,677	7,360,884	13,452,040	3,446,058	2,854,174	160,420,362
V. Precious Metals, Jewellery and Plate ..	240,357	450,918	14,957	33,264	20,226	365	760,087
VI. Textiles and Textile Goods ..	13,127,249	18,148,552	904,912	2,279,365	467,542	1,535,999	36,463,619
VII. Skins and Leather ..	4,999,680	3,548,869	2,526,856	216,675	253,372	293,136	11,838,588
VIII. Clothing ..	11,849,422	14,572,658	1,542,211	951,675	763,600	136,180	29,815,752
IX. Food, Drink and Tobacco ..	53,095,140	46,903,941	38,752,785	10,892,580	6,706,645	4,074,972	60,426,072
X. Woodworking and Basketware ..	8,085,490	4,589,583	3,196,348	1,405,243	954,261	711,39	18,942,326
XI. Furniture, Bedding, etc.	1,999,601	1,295,161	518,290	354,602	225,533	84,19	4,477,887
XII. Paper, Stationery, Printing, Book-binding, etc. ..	7,768,120	6,717,14	810,618	677,903	387,757	771,890	17,133,445
XIII. Rubber ..	3,720,33	3,426,63	318,368	89,954	46,849	25,411	7,552,535
XIV. Musical Instruments ..	48,613	5,57	916	1,104	315		50,543
XV. Miscellaneous Products ..	1,940,374	1,589,57	86,155	135,828	59,863	26,11	4,160,928
Total, Classes I. to XV ..	221,742,577	152,915,454	57,580,299	16,355,703	14,086,576	10,003,870	194,180,179
XVI. Heat, Light and Power ..	1,861,063	1,877,200	350,400	375,139	207,142	64,540	4,442,581
Grand Total ..	223,603,640	154,490,654	57,945,799	16,730,842	15,193,718	10,958,410	198,923,060

(ii) *Total Amount, 1938-39 and 1940-41 to 1943-44.* The following table gives the values of materials used in factories for the years 1940-41 to 1943-44 compared with 1938-39:—

FACTORIES : VALUE OF MATERIALS USED.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
1938-39 ..	170,501,795	82,971,608	42,506,049	20,308,797	9,603,657	5,321,540	231,303,446
1940-41 ..	161,252,339	115,209,347	46,938,189	25,483,544	11,498,304	6,978,120	367,157,852
1941-42 ..	180,460,148	140,108,887	49,384,624	33,264,628	12,452,275	8,300,918	433,190,480
1942-43 ..	207,509,130	149,630,126	55,063,141	36,745,047	13,845,868	9,826,766	472,720,078
1943-44 ..	223,603,640	154,490,654	57,945,796	36,730,842	15,193,718	10,958,410	498,923,060

5. *Value of Output.*—(i) *In Classes of Industry, 1943-44.* The value of the output of new goods manufactured and of repairs effected in factories of various classes in each State in 1943-44 is shown in the following table. The figures given represent not only the increase in value due to the process of manufacture, but include also the values of the raw materials and the power, fuel and light used. The difference between the sum of the values of the materials and of the power fuel and light used, and the value of output is the real value of factory production (see par. 6).

FACTORIES : VALUE OF OUTPUT, 1943-44.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	6,596,208	2,565,401	1,078,709	771,837	414,110	439,078	11,865,343
II. Bricks, Pottery, Glass, etc. ..	4,442,182	2,037,535	308,531	579,532	225,159	34,165	7,627,104
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	24,326,551	22,779,005	1,584,959	10,811,955	2,050,368	261,075	61,813,913
IV. Industrial Metals, Machines, Implements and Conveyances ..	179,798,028	86,834,407	17,860,225	26,540,420	8,737,826	6,689,943	326,460,849
V. Precious Metals, Jewellery and Plate ..	654,113	951,237	64,244	96,791	45,387	3,525	1,815,297
VI. Textiles and Textile Goods ..	21,548,078	30,461,302	1,364,835	3,569,045	722,971	2,662,341	60,328,572
VII. Skins and Leather ..	7,895,981	5,781,860	3,108,078	383,722	492,478	395,736	18,057,855
VIII. Clothing ..	22,068,767	25,855,930	3,149,340	2,228,565	1,519,806	326,245	55,148,653
IX. Food, Drink and Tobacco ..	76,095,151	67,351,533	49,832,296	15,391,095	9,730,348	5,812,812	224,213,235
X. Woodworking and Basketware ..	13,838,985	8,785,451	5,859,331	2,317,177	1,947,823	1,400,146	34,148,913
XI. Furniture, Bedding, etc. ..	3,786,136	2,452,199	1,031,365	714,832	438,636	187,865	8,611,033
XII. Paper, Stationery, Printing, Book-binding, etc. ..	16,048,983	13,356,139	2,045,822	1,685,827	1,005,972	2,219,515	36,362,258
XIII. Rubber ..	5,504,107	5,491,770	490,906	180,390	99,659	61,668	11,828,500
XIV. Musical Instruments ..	175,090	22,768	8,453	9,592	3,088	..	218,991
XV. Miscellaneous Products ..	4,573,228	3,841,669	278,960	313,584	159,616	103,829	9,270,886
Total, Classes I. to XV. ..	387,351,588	278,568,206	88,066,054	65,594,364	27,593,247	20,597,943	867,771,402
XVI. Heat, Light and Power ..	11,786,102	6,079,708	2,252,383	1,984,013	1,615,341	250,267	23,967,814
Grand Total ..	399,137,690	284,647,914	90,318,437	67,578,377	29,208,588	20,848,210	891,739,216

(ii) *Total, 1938-39 and 1940-41 to 1943-44.* The following table shows the value of output in each State during the years 1940-41 to 1943-44 compared with 1938-39 :—

FACTORIES : VALUE OF OUTPUT.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
1938-39 ..	218,419,313	152,967,611	63,321,073	35,005,264	19,548,511	11,158,205	500,419,977
1940-41 ..	285,916,850	200,348,845	70,236,404	43,600,329	21,824,074	13,867,446	644,704,908
1941-42 ..	339,488,312	257,281,080	76,130,050	59,896,493	23,952,034	16,311,002	773,058,071
1942-43 ..	373,489,055	277,635,040	86,213,475	67,568,707	26,737,549	18,703,930	850,348,656
1943-44 ..	399,137,690	284,647,914	90,318,437	67,578,377	29,208,588	20,848,210	891,739,216

6. **Value of Production.**—(i) *In Classes of Industry, 1943-44.* The value of production for any industry was defined at the Conference of Statisticians at Sydney in 1925 as "the value of consumable commodities produced during the year, deducting, so far as possible, the value of goods consumed in process of production".

In accordance with this definition, it was agreed that a deduction consisting of the costs of raw material, containers, power, fuel, light, lubricants, water, tools replaced, repairs to plant and depreciation should be made from the "value of output". All these deductions with the exception of depreciation are included in the items "value of materials used" and "value of fuel used" as defined above. On account of the difficulty experienced in securing accurate figures for depreciation, it was subsequently agreed that the particulars obtained should be published but that no deduction should be made on this account for the present. The value of production as given in the following tables is obtained, therefore, by deducting "value of materials used" and "value of fuel used" from the "value of the output".

The figure thus calculated is, however, not the net value of production. The deduction for depreciation, particulars of which are shown in § 8, par. 4, was estimated at £20,806,853 for 1943-44. Many miscellaneous expenses, such as insurance and advertising, have not been taken into account. Therefore, it must not be inferred that when wages and salaries are deducted from the value of production, the whole of the "surplus" is available for interest and profit.

The following table shows the value of production in 1943-44 in each State for the various classes of factories :—

FACTORIES : VALUE OF PRODUCTION, 1943-44.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	2,349,979	1,220,573	458,252	337,827	189,859	201,996	4,758,486
II. Bricks, Pottery, Glass, etc. ..	2,592,744	1,234,806	213,223	337,475	130,791	19,825	4,528,864
III. Chemicals, Dyes, Explosives, Paints, Oils and Grease ..	9,658,373	9,992,121	577,000	5,070,289	571,839	58,802	25,928,424
IV. Industrial Metals, Machines, Implements and Conveyances ..	78,524,882	47,601,994	10,204,338	12,470,529	5,094,417	3,494,938	157,391,098
V. Precious Metals, Jewellery and Plate ..	402,403	483,315	48,265	59,013	24,728	3,048	1,020,772
VI. Textiles and Textile Goods ..	8,101,729	11,704,318	439,354	1,197,691	240,671	1,082,966	22,766,729
VII. Skins and Leather ..	2,751,855	2,117,168	544,839	163,393	216,366	91,459	5,885,080
VIII. Clothing ..	10,046,640	11,979,819	1,585,242	1,253,502	744,467	186,497	24,896,161
IX. Food, Drink, and Tobacco ..	21,439,691	19,050,977	10,258,636	4,070,158	2,736,240	1,597,337	59,153,039
X. Woodworking and Basketware ..	5,543,687	4,069,522	2,583,978	883,384	947,949	655,741	14,684,261
XI. Furniture, Bedding, etc. ..	1,755,980	1,139,329	504,741	352,252	210,042	101,495	4,063,839
XII. Paper, Stationery, Printing, Book-binding, etc. ..	8,058,046	6,201,890	1,202,561	937,548	602,566	1,257,448	18,350,059
XIII. Rubber ..	1,645,508	1,888,387	160,359	85,044	49,383	34,250	3,862,931
XIV. Musical Instruments ..	120,355	16,758	7,474	8,452	2,767	..	155,806
XV. Miscellaneous Products ..	2,546,378	2,202,751	100,037	170,465	98,334	75,690	5,283,655
Total, Classes I. to XV.	155,538,250	120,093,728	28,978,299	27,397,022	11,860,419	8,861,486	352,729,204
XVI. Heat, Light and Power ..	7,187,760	3,236,790	1,232,229	1,014,464	651,107	183,933	13,506,283
Grand Total	162,726,010	123,330,518	30,210,528	28,411,486	12,511,526	9,045,419	366,235,487

(ii) *Total and Averages, 1938-39 and 1940-41 to 1943-44.* The value of production and the amount per person engaged and per head of population are shown in the following table for the last four years compared with 1938-39 :—

FACTORIES : VALUE OF PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
VALUE.							
1938-39 ..	£ 90,265,891	£ 65,996,069	£ 19,301,475	£ 13,678,930	£ 8,775,586	£ 5,398,659	£ 203,416,610
1940-41 ..	115,044,388	89,000,711	21,644,338	16,916,102	9,016,922	6,291,888	257,914,349
1941-42 ..	138,790,351	110,937,614	24,830,339	24,565,855	10,100,531	7,214,338	316,439,028
1942-43 ..	153,682,262	121,391,367	29,044,560	28,354,359	11,454,057	8,075,451	352,002,056
1943-44 ..	162,726,010	123,330,518	30,210,528	28,411,486	12,511,526	9,045,419	366,235,487

PER PERSON ENGAGED.

	£	£	£	£	£	£	£
1938-39 ..	395	327	357	315	378	391	360
1940-41 ..	433	375	378	333	397	397	397
1941-42 ..	465	429	401	376	421	411	436
1942-43 ..	487	463	452	390	444	441	464
1943-44 ..	504	472	467	408	445	457	478

PER HEAD OF POPULATION.

	£	£	£	£	£	£	£
1938-39 ..	33.02	35.20	19.17	23.01	18.97	22.79	29.36
1940-41 ..	41.26	46.34	21.01	28.29	19.25	26.21	36.49
1941-42 ..	49.35	56.77	23.99	40.60	21.56	30.14	44.34
1942-43 ..	54.29	61.58	27.85	46.26	23.85	33.45	48.90
1943-44 ..	57.00	62.08	28.55	45.93	25.93	37.63	50.40

7. *Value of Output and Cost of Production.*—As the total value of the output for Australia for 1943-44 was estimated at £891,739,216, there remained, after payment of £498,923,060 for the value of the materials used, of £216,873,819 for salaries and wages, and of £26,580,669 for power, fuel and light, the sum of £149,361,668 to provide for all other expenditure, depreciation, interest and profits. The following table gives corresponding particulars for each State expressed absolutely and as percentages on the total value of the output for the year 1943-44 :—

FACTORIES : VALUE OF OUTPUT AND COST OF PRODUCTION, 1943-44.

State.	Materials Used. (a)	Power, Fuel and Light. (b)	Salaries and Wages.	All other Expenditure, Interest, Profits, etc.	Total Value of Output.
VALUE AND COST, ETC.					
New South Wales ..	£ 223,603,640	£ 12,808,040	£ 93,518,326	£ 69,207,684	£ 399,137,690
Victoria ..	154,490,654	6,826,742	73,961,193	49,369,325	284,647,914
Queensland ..	57,945,796	2,162,113	18,071,689	12,138,839	90,318,437
South Australia ..	36,730,842	2,436,049	18,711,413	9,700,073	67,578,377
Western Australia ..	15,193,718	1,503,344	7,417,595	5,093,931	29,208,588
Tasmania ..	10,958,410	844,381	5,193,603	3,851,816	20,848,210
Australia ..	498,923,060	26,580,669	216,873,819	149,361,668	891,739,216

(a) Includes the value of containers, packing, etc., also the cost of tools replaced and repairs to plant.
(b) Includes lubricants and water.

FACTORIES: VALUE OF OUTPUT AND COST OF PRODUCTION, 1943-44—
continued.

State.	Materials Used. (a)	Power, Fuel and Light. (b)	Salaries and Wages.	All other Expenditure, Interest, Profits, etc.	Total Value of Output.
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PERCENTAGE OF COSTS, ETC., ON TOTAL VALUE.

	%	%	%	%	%
New South Wales ..	56.02	3.21	23.43	17.34	100.00
Victoria ..	54.27	2.40	25.98	17.35	100.00
Queensland ..	64.16	2.39	20.72	12.73	100.00
South Australia ..	54.35	3.60	27.69	14.36	100.00
Western Australia ..	52.02	5.15	25.40	17.43	100.00
Tasmania ..	52.57	4.04	24.91	18.48	100.00
Australia ..	55.95	2.98	24.32	16.75	100.00

(a) Includes the value of containers, packing, etc., also the cost of tools replaced and repairs to plant.
(b) Includes lubricants and water.

§ 8. Value of Land, Buildings, Plant and Machinery.

1. General.—The following statement shows the value of land and buildings and of plant and machinery used in connexion with manufacturing industries during the year 1943-44 :—

FACTORIES: VALUE OF LAND, BUILDINGS, PLANT AND MACHINERY, 1943-44.

Value of—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
Land and buildings	78,978,013	55,062,982	13,262,504	17,629,235	6,920,805	5,293,066	177,146,605
Plant and machinery	73,803,954	55,457,719	17,886,417	18,415,477	7,364,909	8,064,293	180,992,769
Total ..	152,781,967	110,520,701	31,148,921	36,044,712	14,285,714	13,357,359	358,139,374

The values recorded in this section are generally the values apportioned in the books of the individual firms after allowance has been made for depreciation. The totals shown in the table consequently do not represent the actual amount of capital invested in the items specified.

2. Value of Land and Buildings.—(i) *Total for Australia, 1938-39 and 1940-41 to 1943-44.* The following table shows for Australia as a whole the approximate value of land and buildings occupied in connexion with manufacturing industries for 1938-39 and 1940-41 to 1943-44.

FACTORIES : VALUE OF LAND AND BUILDINGS, AUSTRALIA.

Class of Industry.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	2,778,746	2,762,942	2,732,566	2,615,787	2,623,361
II. Bricks, Pottery, Glass, etc. ..	2,953,557	3,178,748	3,223,865	2,912,817	2,706,737
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	7,377,551	10,461,634	17,220,487	18,668,293	18,635,144
IV. Industrial Metals, Machines, Implements and Conveyances ..	34,841,028	39,329,041	42,677,884	53,041,129	60,043,410
V. Precious Metals, Jewellery and Plate ..	633,009	688,763	642,390	579,780	590,482
VI. Textiles and Textile Goods ..	5,999,671	6,892,471	7,591,893	7,996,992	8,378,695
VII. Skins and Leather ..	2,095,886	2,225,791	2,269,186	2,279,645	2,327,945
VIII. Clothing ..	10,623,619	11,035,281	11,244,302	11,133,533	11,852,661
IX. Food, Drink and Tobacco ..	33,273,248	35,325,688	35,999,042	35,927,769	37,376,297
X. Woodworking and Basketware ..	4,106,963	4,425,422	4,639,596	4,623,716	4,811,963
XI. Furniture, Bedding, etc. ..	2,533,254	2,653,043	2,543,193	2,366,887	2,259,307
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	10,639,315	11,514,735	11,519,651	11,478,257	11,408,044
XIII. Rubber ..	1,676,043	1,699,243	1,738,699	1,643,420	1,684,331
XIV. Musical Instruments ..	104,838	134,454	145,275	99,949	98,829
XV. Miscellaneous Products ..	1,432,857	1,620,870	1,981,221	2,113,459	2,292,206
Total, Classes I. to XV.	121,069,585	133,948,126	146,169,250	157,481,433	167,089,412
XVI. Heat, Light and Power ..	9,859,829	10,145,530	10,163,850	10,112,514	10,057,193
Grand Total ..	130,929,414	144,093,656	156,333,100	167,593,947	177,146,605

(ii) *In Classes of Industry in States, 1943-44.* The following table gives particulars of the various classes of industry in each State.

FACTORIES : VALUE OF LAND AND BUILDINGS, 1943-44.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	1,287,195	722,782	176,353	209,331	68,323	159,377	2,623,361
II. Bricks, Pottery, Glass, etc. ..	1,828,532	586,759	83,725	144,616	51,828	11,277	2,706,737
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	4,259,177	6,133,054	227,143	7,216,153	715,507	84,110	18,635,144
IV. Industrial Metals, Machines, Implements and Conveyances ..	33,506,313	15,860,957	3,221,843	3,865,768	2,134,459	1,514,070	60,043,410
V. Precious Metals, Jewellery and Plate ..	228,480	263,969	24,699	43,052	24,057	6,225	590,482
VI. Textiles and Textile Goods ..	2,998,776	4,402,622	135,262	430,004	128,902	283,129	8,373,695
VII. Skins and Leather ..	1,059,799	898,140	128,223	75,585	125,573	40,625	2,327,945
VIII. Clothing ..	5,327,587	4,807,596	562,192	573,472	466,566	115,248	11,852,661
IX. Food, Drink and Tobacco ..	13,907,622	11,238,564	6,032,107	2,996,123	1,718,481	1,483,400	37,376,297
X. Woodworking and Basketware ..	2,162,556	1,318,768	498,041	385,154	260,241	187,203	4,811,963
XI. Furniture, Bedding, etc. ..	921,384	757,599	256,868	152,586	115,775	55,095	2,259,307
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	4,655,115	3,853,866	923,018	740,066	499,722	736,257	11,408,044
XIII. Rubber ..	787,624	653,289	117,067	56,283	39,757	30,311	1,684,331
XIV. Musical Instruments ..	59,470	22,635	74,600	5,144	4,120	..	98,829
XV. Miscellaneous Products ..	1,059,009	959,871	84,182	104,689	57,391	27,064	2,292,206
Total, Classes I. to XV.	74,048,639	52,480,471	12,478,183	16,938,026	6,410,702	4,733,391	167,089,412
XVI. Heat, Light and Power ..	4,929,374	2,582,511	784,321	691,209	510,103	559,675	10,057,193
Grand Total ..	78,978,013	55,062,982	13,262,504	17,629,235	6,920,805	5,293,066	177,146,605

(iii) *Totals in each State.*—The following table shows the value of land and buildings in each State for the years 1938-39 and 1940-41 to 1943-44 :—

FACTORIES : VALUE OF LAND AND BUILDINGS.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
1938-39 ..	57,353,625	42,026,245	12,299,089	8,710,700	6,813,653	3,717,102	130,920,414
1940-41 ..	61,886,528	47,092,751	12,594,215	11,480,505	6,802,488	4,237,169	144,093,656
1941-42 ..	65,015,509	50,091,505	13,082,394	16,665,829	7,093,250	4,381,553	156,333,100
1942-43 ..	72,622,902	52,642,052	13,159,140	17,473,537	6,770,121	4,926,195	167,593,947
1943-44 ..	78,978,013	55,062,982	13,262,504	17,629,235	6,920,805	5,293,066	177,146,605

Prior to 1929-30 the increase in the value of land and buildings was uninterrupted, rising from £23 million in 1903 to £118 million in 1929-30, a growth of £95 million in 27 years. During the three years ending 1932-33, however, there was a decline of £12 million to £105.8 million, but since that year the value has risen to £177.1 million in 1943-44.

3. *Value of Plant and Machinery.*—(i) *Total for Australia, 1938-39 and 1940-41 to 1943-44.* The following table shows for Australia the approximate value of plant and machinery used in factories in 1938-39 and each of the four years ended 1943-44 :—

FACTORIES : VALUE OF PLANT AND MACHINERY, AUSTRALIA.

Class of Industry.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
	£	£	£	£	£
I. Treatment of Non-metaliferous Mine and Quarry Products ..	7,028,382	6,553,067	6,175,931	5,624,798	5,089,274
II. Bricks, Pottery, Glass, etc. ..	3,144,586	2,978,633	2,975,457	2,580,261	2,246,369
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	6,754,248	10,872,160	14,856,820	17,083,211	17,411,181
IV. Industrial Metals, Machines, Implements and Conveyances ..	33,037,801	40,711,422	45,296,023	52,931,958	56,918,202
V. Precious Metals, Jewellery and Plate ..	197,059	210,133	207,010	200,445	219,266
VI. Textiles and Textile Goods ..	6,657,416	7,714,174	7,844,986	7,915,814	7,600,447
VII. Skins and Leather ..	973,181	1,095,683	1,143,210	1,160,754	1,224,852
VIII. Clothing ..	2,557,388	2,677,323	2,769,587	2,855,529	3,225,678
IX. Food, Drink and Tobacco ..	32,100,675	33,022,606	32,572,699	31,660,416	31,904,522
X. Woodworking and Basketware ..	3,907,551	4,230,650	4,388,014	4,299,740	4,486,081
XI. Furniture, Bedding, etc. ..	727,857	712,922	652,707	602,222	545,199
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	9,188,227	10,840,730	10,566,786	10,074,519	9,531,486
XIII. Rubber ..	1,367,859	1,472,249	1,437,977	1,220,467	1,243,448
XIV. Musical Instruments ..	11,702	15,127	19,861	13,325	14,011
XV. Miscellaneous Products ..	758,273	886,256	1,222,140	1,384,164	1,547,403
Total, Classes I. to XV.	108,412,205	123,993,225	132,129,208	139,607,623	143,207,419
XVI. Heat, Light and Power ..	35,249,922	37,363,009	37,050,584	37,357,703	37,785,350
Grand Total ..	143,662,127	161,356,234	169,179,792	176,965,326	180,992,769

In 1929-30 the value of plant and machinery was £127.6 million, declining to £120.2 million during the next four years, but has since risen to the record figure of £181.0 million for 1943-44. The increase of £4.0 million recorded during the latter year was due particularly to the development in the heavy industries included in Class IV. Increases also occurred in Chemicals, Dyes, Explosives, etc., industries in Class III., and in industries included in Class IX., Food, Drink and Tobacco, as a result of war-time demands on these industries.

(ii) *Totals in each State.* The following table shows the value of plant and machinery in each State during the years 1940-41 to 1943-44 compared with 1938-39. The chief increase during 1943-44 was recorded in Victoria :—

FACTORIES : VALUE OF PLANT AND MACHINERY.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
1938-39 ..	62,692,956	38,626,743	18,095,415	9,749,679	8,095,064	6,402,270	143,662,127
1940-41 ..	68,533,346	44,985,756	18,501,758	14,391,653	7,394,680	7,549,041	161,356,234
1941-42 ..	70,611,613	48,065,805	18,771,893	16,808,122	7,309,560	7,612,799	169,179,792
1942-43 ..	73,121,771	51,963,258	18,793,878	17,848,070	7,205,019	8,133,330	176,965,326
1943-44 ..	73,803,954	55,457,719	17,886,417	18,415,477	7,364,909	8,064,293	180,992,769

(iii) *Value according to Industry, 1943-44.* The following table shows the value of plant and machinery used in factories in each State during 1943-44, classified according to industry :—

FACTORIES : VALUE OF PLANT AND MACHINERY, 1943-44.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	2,823,129	1,385,961	245,971	399,920	94,977	139,316	5,089,274
II. Bricks, Pottery, Glass, etc. ..	1,417,827	572,762	57,702	136,489	54,075	7,514	2,246,369
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	4,286,690	6,860,641	185,885	5,072,927	967,754	37,284	17,411,181
IV. Industrial Metals, Machines, Implements and Conveyances ..	29,731,613	15,719,256	2,652,906	5,265,254	1,458,822	2,090,351	56,918,202
V. Precious Metals, Jewellery and Plate ..	68,801	130,253	4,310	10,949	3,747	1,206	219,266
VI. Textiles and Textile Goods ..	2,619,680	4,004,642	126,886	556,401	100,513	192,325	7,600,447
VII. Skins and Leather ..	559,199	412,946	112,002	18,606	92,680	29,410	1,224,852
VIII. Clothing ..	1,197,204	1,441,836	187,333	247,653	123,701	27,951	3,223,678
IX. Food, Drink and Tobacco ..	10,049,927	7,384,147	10,422,646	1,879,656	1,249,751	918,395	31,904,522
X. Woodworking and Basketware ..	1,542,600	1,121,597	748,570	269,034	450,683	353,597	4,486,081
XI. Furniture, Bedding, etc. ..	227,241	143,960	66,575	57,592	32,649	17,182	545,199
XII. Paper, Stationery, Printing, Book-binding, etc. ..	3,649,396	3,226,690	504,767	714,458	236,008	1,200,077	9,531,486
XIII. Rubber ..	497,553	666,692	38,067	22,836	10,763	7,527	1,243,448
XIV. Musical Instruments ..	9,189	3,042	248	1,376	156	..	14,011
XV. Miscellaneous Products ..	654,795	764,451	25,891	36,338	54,918	11,010	1,547,403
Total, Classes I. to XV.	59,334,854	43,838,876	15,379,759	14,689,489	4,931,287	5,033,154	143,207,419
XVI. Heat, Light and Power ..	14,469,100	11,618,843	2,506,658	3,725,988	2,433,622	3,031,139	37,785,350
Grand Total ..	73,803,954	55,457,719	17,886,417	18,415,477	7,364,909	8,064,293	180,992,769

4. Depreciation of Land and Buildings and Plant and Machinery.—The following table shows the allowance made for the depreciation of land and buildings and plant and machinery used in connexion with the manufacturing industries in each State during the year 1943-44.

ALLOWANCE FOR DEPRECIATION OF LAND AND BUILDINGS AND PLANT AND MACHINERY, 1943-44.

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metallic Mineral Products	500,972	117,838	38,687	14,870	9,742	12,965	695,074
II. Bricks, Pottery, Glass, etc.	180,893	60,662	5,575	14,074	6,574	729	268,507
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	538,925	1,016,104	28,830	949,494	61,285	7,471	2,602,109
IV. Industrial Metals, Machines, Implements and Conveyances ..	5,226,739	1,894,692	300,945	587,115	126,762	237,132	8,373,385
V. Precious Metals, Jewellery and Plate ..	6,048	9,799	332	2,186	287	91	18,743
VI. Textiles and Textile Goods	407,045	610,685	10,303	98,734	12,458	67,635	1,206,860
VII. Skins and Leather ..	47,472	42,183	16,590	1,185	9,551	3,943	120,924
VIII. Clothing	133,488	155,568	13,567	13,528	10,905	2,425	329,481
IX. Food, Drink and Tobacco	876,541	793,690	691,627	190,175	128,844	58,973	2,739,850
X. Woodworking and Basketware	181,624	108,152	77,856	35,979	41,746	37,978	483,335
XI. Furniture, Bedding, etc.	51,680	12,426	8,962	5,305	3,011	1,211	82,595
XII. Paper, Stationery, Printing, Book-binding, etc. ..	403,934	472,723	61,126	66,327	36,678	130,958	1,171,746
XIII. Rubber	142,841	163,696	6,076	3,845	1,411	852	318,721
XIV. Musical Instruments ..	1,421	137	8	74	17	..	1,657
XV. Miscellaneous Products	85,622	98,935	1,321	3,553	1,712	459	191,602
Total, Classes I. to XV.	8,785,245	5,557,290	1,261,805	1,986,444	450,983	562,822	18,604,589
XVI. Heat, Light and Power	1,437,552	205,973	186,205	214,234	84,639	73,661	2,202,264
Grand Total	10,222,797	5,763,263	1,448,010	2,200,678	535,622	636,483	20,806,853

§ 9. Individual Industries.

1. General.—The preceding pages afford a general view of the magnitude of industries in the sixteen groups adopted by the Conference of Statisticians in 1930. While it is not possible, within the limits of this work, to give a detailed account in respect of each industry, particular industries are dealt with hereunder which are of special importance by reason of the employment which they provide for labour and capital or other features of special interest. Where there are only one or two establishments of a particular industry in a State, details of activities are not published, but are combined with some other factory group so that operations of individual concerns will not be disclosed.

2. **Cement and Cement Goods.**—(i) *Details for each State, 1943-44.* The manufacture of cement and cement goods is an important industry included in Class I. and details for each State during 1943-44 are given in the following table :—

CEMENT AND CEMENT GOODS, 1943-44.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Number of factories ..	30	28	17	15	10	5	105
Number of persons engaged ..	932	837	589	448	250	113	3,169
Value of land and buildings ..	£ 566,336	£ 333,732	£ 142,440	£ 97,195	£ 30,042	£ 111,321	£ 1,287,066
Value of plant and machinery ..	£ 714,472	£ 590,820	£ 174,175	£ 331,248	£ 69,977	£ 70,946	£ 1,951,638
Wages paid ..	£ 281,858	£ 258,728	£ 178,591	£ 138,464	£ 72,997	£ 27,426	£ 958,064
Value of fuel used ..	£ 195,644	£ 127,801	£ 85,625	£ 77,919	£ 40,776	£ 27,247	£ 555,012
Value of materials used ..	£ 553,894	£ 518,457	£ 464,127	£ 203,888	£ 125,305	£ 55,593	£ 1,921,264
Total value of output ..	£ 1,321,204	£ 1,248,076	£ 939,928	£ 491,528	£ 296,269	£ 128,726	£ 4,425,731
Value of production ..	£ 571,666	£ 601,818	£ 390,176	£ 209,721	£ 130,188	£ 45,886	£ 1,949,455

(ii) *Total for Australia, 1938-39 and 1940-41 to 1943-44.* The next table gives particulars for the last four years compared with 1938-39 :—

CEMENT AND CEMENT GOODS : AUSTRALIA.

Items.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Number of factories ..	132	146	134	109	105
Number of persons engaged ..	3,932	4,155	4,152	3,434	3,169
Value of land and buildings ..	£ 1,350,175	£ 1,319,560	£ 1,335,719	£ 1,330,684	£ 1,281,066
Value of plant and machinery ..	£ 2,515,814	£ 2,360,901	£ 2,381,841	£ 2,263,035	£ 1,951,638
Wages paid ..	£ 897,426	£ 1,008,113	£ 1,104,129	£ 1,035,426	£ 958,064
Value of fuel used ..	£ 561,578	£ 580,626	£ 627,614	£ 567,206	£ 555,012
Value of materials used ..	£ 1,542,067	£ 1,715,643	£ 1,910,883	£ 1,853,648	£ 1,921,264
Total value of output ..	£ 4,488,891	£ 4,803,432	£ 5,115,996	£ 4,565,584	£ 4,425,731
Value of production ..	£ 2,385,246	£ 2,507,163	£ 2,577,499	£ 2,144,730	£ 1,949,455
Cement, portland grey, produced..	ton 867,849	860,002	889,834	730,316	692,705
	£ 3,023,707	£ 2,902,923	£ 2,953,591	£ 2,435,237	£ 2,320,325

3. **Chemicals, Drugs and Medicines.**—(i) *Details for each State, 1943-44.* This is an important industry in Class III. and details for each State during 1943-44 are shown in the following table :—

CHEMICALS, DRUGS AND MEDICINES, 1943-44.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Number of factories ..	196	87	13	12	13	5	326
Number of persons engaged ..	4,774	3,435	238	896	275	44	9,662
Value of land and buildings ..	£ 2,041,277	£ 995,101	£ 57,328	£ 441,115	£ 73,523	£ 22,660	£ 3,631,004
Value of plant and machinery ..	£ 2,146,185	£ 1,220,014	£ 26,364	£ 702,588	£ 147,963	£ 9,774	£ 4,252,888
Wages paid ..	£ 1,308,023	£ 1,036,290	£ 63,544	£ 245,294	£ 68,930	£ 8,742	£ 2,730,823
Value of fuel used ..	£ 194,901	£ 150,722	£ 6,897	£ 94,990	£ 16,076	£ 848	£ 464,434
Value of materials used ..	£ 4,338,550	£ 3,227,154	£ 203,740	£ 615,210	£ 169,786	£ 21,241	£ 8,575,681
Total value of output ..	£ 9,033,965	£ 6,033,293	£ 367,968	£ 1,260,823	£ 340,121	£ 43,515	£ 17,079,685
Value of production ..	£ 4,500,514	£ 2,655,417	£ 157,331	£ 550,623	£ 154,259	£ 21,426	£ 8,039,570

(ii) *Total for Australia, 1938-39 and 1940-41 to 1943-44.* Details are given in the following table for each of the four years 1940-41 to 1943-44 compared with 1938-39. Considerable development occurred during the war years, much of the production being for war purposes.

CHEMICALS, DRUGS AND MEDICINES : AUSTRALIA.

Items.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Number of factories ..	238	259	278	298	326
Number of persons engaged ..	5,346	6,707	7,571	8,834	9,662
Value of land and buildings ..	£ 1,817,727	£ 2,473,391	£ 2,740,283	£ 3,156,126	£ 3,631,004
Value of plant and machinery ..	£ 1,253,577	£ 2,470,272	£ 2,696,899	£ 3,586,203	£ 4,252,888
Wages paid ..	£ 1,011,906	£ 1,408,919	£ 1,758,404	£ 2,365,229	£ 2,730,823
Value of fuel used ..	£ 121,503	£ 241,680	£ 329,496	£ 424,040	£ 464,434
Value of materials used ..	£ 3,403,680	£ 4,710,868	£ 5,885,296	£ 7,436,051	£ 8,575,681
Total value of output ..	£ 7,351,745	£ 10,026,247	£ 12,408,449	£ 14,978,800	£ 17,079,685
Value of production ..	£ 3,826,562	£ 5,073,699	£ 6,193,657	£ 7,118,709	£ 8,039,570

4. White Lead, Paints and Varnish.—(i) *Details for each State, 1943-44.* The following table shows particulars of this industry for each State during 1943-44 :—

WHITE LEAD, PAINTS AND VARNISH FACTORIES, 1943-44.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	54	39	5	10	2	1	111
Number of persons engaged ..	1,676	437	56	165	13	3	2,350
Value of land and buildings ..	£ 621,591	£ 171,845	£ 11,326	£ 81,102	(a)	(a)	£ 897,777
Value of plant and machinery ..	£ 266,348	£ 87,268	£ 13,050	£ 41,952	(a)	(a)	£ 415,552
Wages paid ..	£ 534,718	£ 127,977	£ 17,156	£ 42,430	(a)	(a)	£ 727,843
Value of fuel used ..	£ 52,631	£ 9,236	£ 1,028	£ 3,069	(a)	(a)	£ 66,262
Value of materials used ..	£ 2,735,522	£ 697,207	£ 163,704	£ 293,478	(a)	(a)	£ 3,943,679
Total value of output ..	£ 4,043,479	£ 1,125,554	£ 259,273	£ 434,861	(a)	(a)	£ 5,931,990
Value of production ..	£ 1,255,326	£ 419,111	£ 94,541	£ 138,314	(a)	(a)	£ 2,122,049

(a) Particulars not available for publication.

(b) Includes Western Australia and Tasmania.

(ii) *Total for Australia, 1938-39 and 1940-41 to 1943-44.* The next table gives particulars for the years 1940-41 to 1943-44 compared with 1938-39 :—

WHITE LEAD, PAINTS AND VARNISH FACTORIES : AUSTRALIA.

Items.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Number of factories ..	102	109	108	110	111
Number of persons engaged ..	2,271	2,408	2,383	2,169	2,350
Value of land and buildings ..	£ 761,345	£ 812,759	£ 802,374	£ 828,790	£ 897,777
Value of plant and machinery ..	£ 324,222	£ 358,447	£ 355,908	£ 368,410	£ 415,552
Wages paid ..	£ 535,014	£ 597,167	£ 650,201	£ 648,455	£ 727,843
Value of fuel used ..	£ 44,992	£ 53,940	£ 57,119	£ 58,080	£ 66,262
Value of materials used ..	£ 2,275,027	£ 2,864,935	£ 3,061,915	£ 3,180,267	£ 3,943,679
Total value of output ..	£ 3,905,104	£ 4,717,987	£ 4,952,682	£ 4,844,646	£ 5,931,990
Value of production ..	£ 1,585,085	£ 1,799,112	£ 1,833,648	£ 1,606,299	£ 1,922,049

5. Soap and Candle Factories.—(i) *Details for each State, 1943-44.* The manufacture of these products is frequently carried on in the same factory, so that separate returns cannot be obtained. The following table gives particulars of soap and candle factories in each State for 1943-44 :—

SOAP AND CANDLE FACTORIES, 1943-44.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.A.	Tas.	Australia.
Number of factories ..	33	15	8	5	2	2	65
Number of persons engaged ..	1,670	683	327	172	67	19	2,938
Value of land and buildings ..	£ 374,577	£ 101,689	£ 39,232	£ 56,402	(a)	(a)	(b) £ 686,001
Value of plant and machinery ..	£ 195,082	£ 162,651	£ 19,089	£ 31,556	(a)	(a)	(b) £ 422,467
Wages paid ..	£ 465,930	£ 203,226	£ 75,546	£ 43,983	(a)	(a)	(b) £ 805,919
Value of fuel used ..	£ 57,245	£ 67,940	£ 6,595	£ 4,770	(a)	(a)	(b) £ 139,713
Value of materials used ..	£ 1,591,239	£ 739,904	£ 244,653	£ 113,081	(a)	(a)	(b) £ 2,757,710
Total value of output ..	£ 3,135,574	£ 1,442,045	£ 427,000	£ 181,380	(a)	(a)	(b) £ 5,200,607
Value of production ..	£ 1,487,090	£ 634,201	£ 175,752	£ 63,529	(a)	(a)	(b) £ 2,393,184

(a) Particulars not available for publication.

(b) Includes Western Australia and Tasmania.

(ii) *Total for Australia, 1938-39 and 1940-41 to 1943-44.* The next table gives similar particulars for the years 1940-41 to 1943-44 compared with 1938-39 :—

SOAP AND CANDLE FACTORIES : AUSTRALIA.

Items.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Number of factories ..	65	66	68	66	65
Number of persons engaged ..	2,620	2,914	3,074	3,084	2,938
Value of land and buildings ..	£ 665,546	£ 731,098	£ 696,218	£ 691,066	£ 686,001
Value of plant and machinery ..	£ 576,732	£ 490,993	£ 498,970	£ 461,918	£ 422,467
Wages paid ..	£ 501,174	£ 605,448	£ 724,737	£ 802,011	£ 805,919
Value of fuel used ..	£ 76,283	£ 96,283	£ 124,615	£ 147,061	£ 139,713
Value of materials used ..	£ 1,567,999	£ 1,973,953	£ 2,602,943	£ 2,979,650	£ 2,757,710
Total value of output ..	£ 3,329,723	£ 4,407,637	£ 5,487,898	£ 6,116,396	£ 5,200,607
Value of production ..	£ 1,885,441	£ 2,337,401	£ 2,760,340	£ 2,989,685	£ 2,393,184

(iii) *Raw Material Used and Production, 1938-39 and 1940-41 to 1943-44.* The following statement shows the quantities of certain raw materials used and the production in soap and candle factories in Australia for the years 1940-41 to 1943-44 compared with 1938-39 :—

SOAP AND CANDLE FACTORIES : RAW MATERIALS USED AND PRODUCTION,
AUSTRALIA.

Particulars.		1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Tallow used cwt.		535,511	633,982	835,440	1,053,412	856,031
Alkali used "		229,881	244,594	275,239	233,856	201,992
Coco-nut oil used—refined "						
and unrefined "		138,954	165,720	164,614	86,367	74,915
Soap made "		986,087	1,037,844	1,254,956	1,355,708	966,982
Candles made "		27,459	25,608	39,241	43,788	38,291

The output for the year 1943-44 comprised the following quantities of soap :— household, 561,512 cwt.; toilet, 256,982 cwt.; sand, 84,101 cwt.; soft, 20,014 cwt.; and woolscouring, 44,373 cwt. This excludes 43,118 cwt. of soap made in establishments not classified as Soap and Candle Factories.

6. Chemical Fertilizers.—(i) *Details for each State, 1943-44.* The following table gives particulars of the factories engaged in the manufacture of chemical fertilizers in each State during 1943-44. Details of the consumption, imports and exports of fertilizers will be found in Chapter XX. "Agricultural Production".

CHEMICAL FERTILIZERS, 1943-44.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	6	7	6	6	5	6	36
Number of persons engaged ..	215	721	71	441	339	31	1,818
Value of land and buildings £	112,796	463,850	69,031	251,516	514,929	41,029	1,454,051
Value of plant and machinery £	98,491	676,089	80,451	642,850	727,433	19,187	2,244,501
Wages paid ..	£ 75,244	£ 256,351	£ 23,051	£ 149,205	£ 117,061	£ 11,203	£ 632,115
Value of fuel used ..	£ 9,823	£ 33,251	£ 1,075	£ 25,576	£ 16,120	£ 1,031	£ 86,876
Value of materials used ..	£ 552,008	£ 1,381,739	£ 178,194	£ 594,317	£ 812,696	£ 140,222	£ 3,659,176
Total value of output ..	£ 692,947	£ 1,891,433	£ 225,813	£ 815,820	£ 1,087,721	£ 153,730	£ 4,867,464
Value of production ..	£ 131,116	£ 476,443	£ 46,544	£ 195,927	£ 258,905	£ 12,477	£ 1,121,412

(ii) *Total for Australia, 1938-39 and 1940-41 to 1943-44.* The development of this industry since 1938-39 is set out hereunder :—

CHEMICAL FERTILIZERS : AUSTRALIA.

Items.		1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Number of factories ..	..	36	34	35	34	36
Number of persons engaged ..	..	2,540	2,312	2,136	1,667	1,818
Value of land and buildings ..	£	1,449,157	1,513,639	1,538,321	1,464,411	1,454,051
Value of plant and machinery ..	£	2,352,819	2,352,793	2,295,124	2,176,426	2,244,501
Wages paid ..	£	601,477	615,085	639,791	539,955	632,115
Value of fuel used ..	£	113,749	107,234	114,868	75,104	86,876
Value of materials used ..	£	3,231,053	3,727,369	3,821,267	2,945,694	3,659,176
Total value of output ..	£	4,944,800	5,327,996	5,219,576	3,923,806	4,867,464
Value of production ..	£	1,599,998	1,493,393	1,283,441	903,008	1,121,412

7. **Smelting, Converting, Refining and Rolling of Iron and Steel.**—(i) *Details for each State, 1943-44.* The extension of the classification referred to in § 1 par. 2 p. 908 has made possible the separate publication of details for the group of industries comprised herein. This grouping includes ironworks, foundries, the making of iron safes and doors, steel castings, iron bedsteads, sash weights, steel window frames and sashes, nuts and bolts, springs, horse-shoes, screws, lifts, tools, brickmakers' implements and oxy-acetylene welding. Particulars for the year 1943-44 are as follows:—

SMELTING, CONVERTING, REFINING AND ROLLING OF IRON AND STEEL, 1943-44.

Items.	N.S.W.	Victoria.	Q'land. (a)	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	184	216	..	39	1	..	440
Number of persons engaged ..	21,629	4,945	..	3,874	175	..	30,623
Value of land and buildings ..	£ 3,268,049	712,800	..	(b)	(b)	..	£ 4,702,806
Value of plant and machinery ..	£ 6,022,868	702,904	..	(b)	(b)	..	£ 9,170,371
Wages paid ..	£ 7,671,640	1,636,130	..	(b)	(b)	..	£ 10,408,673
Value of fuel used ..	£ 3,425,673	142,233	..	(b)	(b)	..	£ 3,731,000
Value of materials used ..	£ 31,989,510	1,651,994	..	(b)	(b)	..	£ 35,662,743
Total value of output ..	£ 49,051,049	4,233,685	..	(b)	(b)	..	£ 56,993,186
Value of production ..	£ 13,635,866	2,439,458	..	(b)	(b)	..	£ 17,599,443

(a) Now included with Engineering.

(b) Particulars not available for publication.

(c) Includes South Australia and Western Australia.

(ii) *Total for Australia, 1938-39 and 1940-41 to 1943-44.* The rapid development of this industry during the war years is illustrated in the following table:—

SMELTING, CONVERTING, REFINING AND ROLLING OF IRON AND STEEL : AUSTRALIA.

Items.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Number of factories ..	363	371	387	407	440
Number of persons engaged ..	19,352	25,800	31,437	32,607	30,623
Value of land and buildings ..	£ 3,532,471	4,246,864	4,595,620	4,578,206	4,702,806
Value of plant and machinery ..	£ 8,611,122	10,223,248	10,556,061	9,942,087	9,170,371
Wages paid ..	£ 4,740,441	7,005,014	9,749,026	10,968,634	10,408,673
Value of fuel used ..	£ 2,318,248	3,082,167	3,744,235	3,910,628	3,731,000
Value of materials used ..	£ 16,502,532	24,816,151	32,921,370	36,697,223	35,662,743
Total value of output ..	£ 29,075,039	42,604,932	53,062,902	58,582,945	56,993,186
Value of production ..	£ 10,254,259	14,706,614	16,397,297	17,975,094	17,599,443
Production of—					
Pig Iron ..	tons 1,104,605	1,475,707	1,557,641	1,399,306	1,305,357
Ingot steel ..	tons 1,171,787	1,647,108	1,699,793	1,632,825	1,527,564

8. **Engineering Works.**—(i) *Details for each State, 1943-44.* Formerly, it was impossible to show separate details for the engineering industry owing to the different classifications among the States, but since 1926-27 substantial uniformity has been attained.

The classification of establishments included in the Industrial Metal Group still presents some difficulty. This arises from the fact that some establishments are engaged in two or more distinct types of industrial activity. In such cases factory proprietors are asked to furnish separate returns for each activity, but this is not always practicable and consequently there is no alternative but to classify such factories according to their

predominant activity. This difficulty is most acute in engineering works, but the following figures may be accepted as reasonably representative of the engineering industry, excluding the marine and electrical branches:—

ENGINEERING WORKS,(a) 1943-44.

Items.	N.S.W.	Victoria.	Q'land. (b)	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	689.	650	116	117	133	37	1,742
Number of persons engaged ..	24,822	24,774	4,043	4,639	2,964	663	61,905
Value of land and buildings £	3,530,901	3,663,140	440,865	383,105	417,359	105,379	8,540,749
Value of plant and machinery ..	£ 3,065,000	4,778,929	394,251	561,908	342,564	113,312	9,255,964
Wages paid ..	£ 8,172,974	3,072,561	1,173,885	1,276,674	965,138	203,625	19,864,857
Value of fuel used ..	£ 334,324	364,682	61,518	60,385	55,440	9,521	885,870
Value of materials used ..	£ 9,856,213	10,093,176	1,112,513	1,162,818	806,431	107,865	23,139,016
Total value of putput ..	£ 22,625,723	22,881,200	2,911,536	2,945,283	2,167,775	389,469	53,920,986
Value of production ..	£ 12,435,186	12,423,342	1,737,505	1,722,080	1,305,904	272,083	29,896,100

(a) Excludes marine and electrical.
iron and steel.

(b) Includes smelting, converting, refining and rolling of

In addition to engineering works which supply ordinary requirements, many establishments manufacture special classes of machinery and implements. The manufacture of mining, smelting and textile machinery and apparatus forms an important section of this industry.

(ii) *Total for Australia, 1938-39 and 1940-41 to 1943-44.* The heavy demands brought about by the war, aggravated by difficulties in obtaining some imports during the war years, resulted in a remarkable development in this industry, as shown in the table set out hereunder:—

ENGINEERING WORKS: AUSTRALIA.

Items.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Number of factories ..	1,099	1,210	1,372	1,563	1,742
Number of persons engaged ..	26,222	34,690	47,818	59,708	61,905
Value of land and buildings ..	£ 3,894,051	4,760,956	6,084,788	7,457,040	8,540,749
Value of plant and machinery ..	£ 3,610,494	4,468,022	5,492,563	7,202,359	9,255,964
Wages paid ..	£ 5,741,685	8,637,631	14,243,584	19,207,546	19,864,857
Value of fuel used ..	£ 291,409	417,304	624,314	871,157	885,870
Value of materials used ..	£ 7,339,564	11,235,170	15,831,976	20,773,100	23,139,016
Total value of output ..	£ 16,879,645	24,909,083	38,541,353	50,145,454	53,920,986
Value of production ..	£ 9,248,672	13,237,209	22,085,063	28,501,197	29,896,100

9. *Extracting and Refining of Non-ferrous Metals and Alloys.*—(i) *Details for each State, 1943-44.* The following table gives particulars of metal extraction and ore reduction works, other than those connected with iron and steel. The returns do not include particulars of plants used in mines:—

EXTRACTING AND REFINING OF NON-FERROUS METALS AND ALLOYS, 1943-44.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.A. (a)	Tas.	Australia.
Number of factories ..	14	12	11	2	..	4	43
Number of persons engaged ..	1,666	127	867	1,338	..	2,323	6,321
Value of land and buildings £	309,956	(b)	294,829	(b)	..	582,979	c 1,358,722
Value of plant and machinery ..	£ 1,210,469	(b)	854,657	(b)	..	1,239,732	c 3,930,910
Wages paid ..	£ 623,972	(b)	283,046	(b)	..	817,011	c 2,291,782
Value of fuel used ..	£ 323,392	(b)	75,993	(b)	..	262,311	c 788,797
Value of materials used ..	£ 9,001,312	(b)	1,146,543	(b)	..	2,135,892	c 17,755,594
Total value of output ..	£ 11,143,117	(b)	1,935,649	(b)	..	4,101,917	c 23,513,675
Value of production ..	£ 1,818,413	(b)	713,113	(b)	..	1,703,714	c 4,969,284

(a) In Western Australia the majority of the plants are worked on the mines, and are therefore not included. (b) Particulars not available for publication. (c) Includes particulars for States marked (b).

(ii) *Total for Australia, 1938-39 and 1940-41 to 1943-44.* The development of this industry since 1938-39 is set out hereunder :—

EXTRACTING AND REFINING OF NON-FERROUS METALS AND ALLOYS : AUSTRALIA.

Items.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Number of factories	42	42	42	41	43
Number of persons engaged	5,532	5,984	6,564	6,632	6,321
Value of land and buildings	£ 1,177,348	£ 1,305,653	£ 1,357,000	£ 1,374,230	£ 1,358,722
Value of plant and machinery	£ 3,525,659	£ 3,918,586	£ 4,053,362	£ 4,080,282	£ 3,930,910
Wages paid	£ 1,613,107	£ 1,724,855	£ 2,107,669	£ 2,276,458	£ 2,291,782
Value of fuel used	£ 597,951	£ 681,755	£ 774,789	£ 849,979	£ 788,797
Value of materials used	£ 16,844,310	£ 20,012,948	£ 20,479,585	£ 17,669,490	£ 17,755,594
Total value of output	£ 21,333,872	£ 25,605,489	£ 26,501,156	£ 23,661,486	£ 23,513,675
Value of production	£ 3,891,611	£ 4,910,786	£ 5,246,782	£ 5,142,017	£ 4,969,284

10. *Electrical Installations, Cables and Apparatus.*—(i) *Details for each State, 1943-44.* The following table shows particulars of this industry for each State during 1943-44 :—

ELECTRICAL INSTALLATIONS, CABLES AND APPARATUS, 1943-44.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	206	142	16	32	26	9	431
Number of persons engaged	13,144	5,655	185	1,280	318	77	20,659
Value of land and buildings	£ 1,703,856	£ 771,870	£ 34,731	£ 120,601	£ 65,613	£ 17,238	£ 2,713,999
Value of plant and machinery	£ 1,080,328	£ 534,063	£ 7,680	£ 80,330	£ 12,122	£ 9,522	£ 1,724,045
Wages paid	£ 3,696,184	£ 1,534,921	£ 46,212	£ 341,977	£ 72,555	£ 18,933	£ 5,710,782
Value of fuel used	£ 127,765	£ 46,965	£ 882	£ 14,570	£ 2,523	£ 837	£ 193,542
Value of materials used	£ 4,988,925	£ 2,281,306	£ 61,888	£ 362,945	£ 79,309	£ 30,202	£ 7,804,575
Total value of output	£ 10,521,030	£ 4,589,621	£ 148,939	£ 817,477	£ 198,144	£ 71,498	£ 16,346,709
Value of production	£ 5,404,340	£ 2,261,350	£ 86,169	£ 439,962	£ 116,312	£ 40,459	£ 8,348,592

(ii) *Total for Australia, 1938-39 and 1940-41 to 1943-44.* The increased output of electrical energy in Australia within recent years, referred to in par. 39 below, caused a corresponding demand for electrical equipment. As imports declined heavily during the depression years the local industry was called upon to furnish the bulk of the new needs and consequently the development in the manufacture of electrical goods in Australia has been considerable.

ELECTRICAL INSTALLATIONS, CABLES AND APPARATUS : AUSTRALIA.

Items.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Number of factories	360	361	383	401	431
Number of persons engaged	10,666	13,218	15,303	19,442	20,559
Value of land and buildings	£ 1,627,183	£ 1,831,807	£ 2,090,314	£ 2,442,968	£ 2,713,999
Value of plant and machinery	£ 896,553	£ 1,003,036	£ 1,278,361	£ 1,600,093	£ 1,724,045
Wages paid	£ 2,031,098	£ 2,827,843	£ 3,827,158	£ 5,280,102	£ 5,710,782
Value of fuel used	£ 104,594	£ 122,795	£ 151,698	£ 186,983	£ 193,542
Value of materials used	£ 3,195,032	£ 4,310,587	£ 5,394,238	£ 7,788,397	£ 7,804,575
Total value of output	£ 6,954,498	£ 8,972,810	£ 11,507,661	£ 15,875,437	£ 16,346,709
Value of production	£ 3,654,872	£ 4,539,428	£ 5,961,725	£ 7,900,057	£ 8,348,592

11. *Railway and Tramway Workshops.*—(i) *Details for each State, 1943-44.* The railway and tramway workshops which form an important item in Class IV. are chiefly State-owned institutions and their development is a reflection of the growth of the railway

and tramway systems of Australia. The following table includes, in addition, municipal establishments for manufacturing and repairing rolling stock. Private institutions numbering 9 in 1943-44 have been excluded :—

TRAMCARS, RAILWAY ROLLING STOCK AND CARRIAGES, ETC.(a), 1943-44.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	36	25	11	15	22	7	116
Number of persons engaged ..	14,119	8,781	5,198	7,288	2,780	889	39,058
Value of land and buildings £	3,181,338	1,495,896	563,723	1,050,943	515,617	94,747	6,902,264
Value of plant and machinery ..	£ 2,692,238	1,166,077	443,848	915,714	436,952	52,979	5,707,808
Wages paid ..	£ 4,872,735	2,869,230	2,093,020	2,362,096	874,083	336,765	13,407,931
Value of fuel used ..	£ 152,291	74,105	48,611	113,166	46,706	19,161	454,130
Value of materials used ..	£ 3,419,000	1,624,842	1,305,467	1,669,450	520,167	51,277	8,590,203
Total value of output ..	£ 9,287,869	5,008,368	3,314,846	4,560,185	1,828,366	447,923	24,947,557
Value of production ..	£ 5,716,578	3,399,421	2,460,768	2,777,569	1,261,403	377,485	15,903,224

(a) Government and Municipal only.

A railway workshop in the Northern Territory is chiefly engaged in making repairs to rolling stock, etc., no new goods being manufactured. Particulars in regard to this establishment are not included in any of the tables in this chapter.

(ii) *Total for Australia, 1938-39 and 1940-41 to 1943-44.* The following table shows the development of railway and tramway workshops in Australia since 1938-39 :—

TRAMCARS, RAILWAY ROLLING STOCK AND CARRIAGES, ETC. (a) : AUSTRALIA.

Items.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Number of factories ..	117	119	114	114	116
Number of persons engaged ..	27,310	30,178	35,020	38,721	39,058
Value of land and buildings ..	£ 6,736,024	6,619,976	6,682,491	6,765,186	6,902,264
Value of plant and machinery ..	£ 5,390,179	5,476,446	5,519,669	5,684,696	5,707,808
Wages paid ..	£ 6,720,990	8,014,441	10,936,517	12,943,437	13,407,931
Value of fuel used ..	£ 226,108	281,726	367,451	451,527	454,130
Value of materials used ..	£ 4,976,353	5,116,044	6,774,775	7,731,445	8,590,203
Total value of output ..	£ 13,223,114	14,867,940	20,086,070	23,490,587	24,947,557
Value of production ..	£ 8,020,653	9,469,270	12,943,844	15,307,615	15,903,224

(a) Government and Municipal only.

12. *Motor Vehicles and Cycles.*—The industries catering for the motor trade are included in Class IV. “Industrial Metals, Machines, Implements and Conveyances” Returns in regard to assembling and repairing are shown hereunder for 1943-44 :—

ASSEMBLING AND REPAIRING OF MOTOR VEHICLES AND CYCLES, 1943-44.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	1,110	891	287	174	229	110	2,801
Number of persons engaged ..	8,133	7,181	2,872	1,750	1,331	585	21,852
Value of land and buildings £	2,627,092	1,885,130	500,005	490,320	408,414	235,556	6,146,517
Value of plant and machinery ..	£ 606,780	427,035	129,021	193,607	114,128	40,238	1,510,809
Wages paid ..	£ 2,028,279	2,019,513	724,867	415,932	335,562	109,533	5,633,716
Value of fuel used ..	£ 95,898	79,560	28,116	18,001	18,257	3,815	243,647
Value of materials used ..	£ 2,351,124	2,379,928	701,560	404,068	378,454	97,284	6,312,412
Total value of output ..	£ 5,636,028	5,446,386	1,826,747	1,065,549	962,396	293,306	15,230,412
Value of production ..	£ 3,189,006	2,986,898	1,097,071	643,480	565,685	192,207	8,674,347

Particulars in regard to motor body building for 1943-44 are as follows :—

MOTOR BODY BUILDING, 1943-44.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories ..	54	72	30	14	11	17	198
Number of persons engaged ..	982	4,200	439	7,707	180	113	13,621
Value of land and buildings ..	£ 251,298	£ 704,460	£ 66,737	£ 428,428	£ 48,881	£ 46,385	£ 1,546,198
Value of plant and machinery ..	£ 68,723	£ 318,393	£ 35,674	£ 644,556	£ 12,844	£ 2,979	£ 1,113,173
Wages paid ..	£ 296,435	£ 1,482,590	£ 126,038	£ 2,401,055	£ 47,528	£ 21,844	£ 4,375,499
Value of fuel used ..	£ 8,409	£ 34,180	£ 3,660	£ 61,852	£ 2,254	£ 447	£ 110,802
Value of materials used ..	£ 582,658	£ 2,222,662	£ 141,382	£ 1,445,188	£ 75,939	£ 19,046	£ 4,486,875
Total value of output ..	£ 1,096,226	£ 1,471,442	£ 346,651	£ 4,379,304	£ 146,981	£ 57,482	£ 10,108,056
Value of production ..	£ 505,159	£ 2,214,600	£ 201,609	£ 2,872,264	£ 68,758	£ 37,989	£ 5,900,379

(a) Includes horse-drawn vehicles.

The output of motor bodies together with the number imported into Australia for 1931-32, 1938-39 and the years 1940-41 to 1943-44 are shown in the next table :—

MOTOR BODIES : PRODUCTION AND IMPORTS, AUSTRALIA.

Items.	1931-32.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Motor Bodies—						
Number made ..	No. 6,323	79,436	49,130	62,731	44,286	29,309
Value ..	£ 450,510	£ 6,421,142	£ 3,337,346	£ 4,321,988	£ 4,632,771	£ 2,582,912
Number imported ..	No. 61	532	50	16	270	604
Value ..	£ 7,360	£ 56,041	£ 4,057	£ 1,805	£ 57,010	£ 52,834

13. *Agricultural Implement Works.*—(i) *General.* The manufacture of agricultural implements is of particular interest, owing to the extensive agricultural activities and to the fact that it was one of the first to which it was sought to apply the so-called "New Protection". The articles manufactured include a wide range of agricultural implements for tillage, seeding and planting and the harvesting of crops. Other farm machinery made includes oil engines, windmills, chaff-cutters and machinery used in the dairying industry.

(ii) *Details for States, 1943-44.* The following table gives details respecting agricultural implement works in each State for 1943-44 :—

AGRICULTURAL IMPLEMENT WORKS, 1943-44.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	43	55	9	32	6	..	145
Number of persons engaged ..	1,849	4,401	1,405	1,432	91	..	9,178
Value of land and buildings ..	£ 201,300	£ 578,798	£ 62,378	£ 161,242	£ 42,984	..	£ 1,046,702
Value of plant and machinery ..	£ 111,540	£ 698,962	£ 122,916	£ 185,322	£ 2,886	..	£ 1,121,626
Wages paid ..	£ 570,607	£ 1,472,170	£ 402,870	£ 337,514	£ 32,807	..	£ 2,821,968
Value of fuel used ..	£ 21,292	£ 132,484	£ 11,935	£ 32,408	£ 561	..	£ 198,680
Value of materials used ..	£ 688,382	£ 1,398,053	£ 320,069	£ 403,246	£ 12,710	..	£ 2,822,460
Total value of output ..	£ 1,431,731	£ 3,435,008	£ 813,543	£ 810,615	£ 53,505	..	£ 6,604,402
Value of production ..	£ 762,057	£ 1,904,471	£ 481,539	£ 374,961	£ 40,234	..	£ 3,583,262

(iii) *Total for Australia, 1938-39 and 1940-41 to 1943-44.* Following the mobilization of man-power in Australia on Japan's entry into the war in 1941, the area under crops declined by about 20 per cent. and the output of agricultural implements was materially reduced. Later, however, in order to satisfy the need for increased output of food for Services, civilians and exports, it was necessary to divert agricultural implement establishments from production of war material to their normal production

of agricultural implements with the result that a rise in the production of the latter commenced in 1942-43 and continued during 1943-44. Details for each of the last four years compared with 1938-39 are as follows :—

AGRICULTURAL IMPLEMENT WORKS : AUSTRALIA.

Items.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Number of factories	161	161	161	144	145
Number of persons engaged	6,563	7,320	8,934	9,457	9,178
Value of land and buildings	£ 996,949	1,042,277	1,025,966	1,037,513	1,046,702
Value of plant and machinery	£ 910,520	981,957	990,611	1,093,853	1,121,626
Wages paid	£ 1,373,213	1,778,465	2,589,138	2,954,294	2,821,968
Value of fuel used	£ 81,736	133,060	194,278	215,379	198,680
Value of materials used	£ 1,485,018	1,809,800	2,976,645	2,762,748	2,822,460
Total value of output	£ 3,403,091	4,300,340	6,425,617	6,727,818	6,604,402
Value of production	£ 1,836,337	2,357,480	3,254,694	3,749,691	3,583,262

14. **Wireless Apparatus.**—The introduction of wireless broadcasting in 1923 gave rise to a new industry in Australia. Early statistical details of the industry are not available as they were grouped together with other electrical apparatus. In 1930-31, a new classification of factories was adopted and "Wireless Apparatus" was shown as a separate industry. The industry is confined, almost entirely, to New South Wales and Victoria. The number of broadcast listeners' licences increased from 331,128 in 1930-31 to 1,454,302 in 1943-44, and this increase reflects the advancement of the industry during that period. During the war years considerable expansion took place in the industry to meet the requirements of the fighting services.

WIRELESS APPARATUS : AUSTRALIA.

Items.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Number of factories	72	77	74	73	85
Number of persons engaged	4,828	6,165	8,429	9,554	11,020
Value of land and buildings	£ 557,953	573,171	661,706	754,977	895,642
Value of plant and machinery	£ 305,408	335,735	415,736	544,023	613,088
Wages paid	£ 754,302	1,121,252	1,977,294	2,429,430	2,959,291
Value of fuel used	£ 23,525	33,473	44,623	58,517	68,553
Value of materials used	£ 1,355,683	1,907,840	2,680,753	2,944,053	3,379,511
Total value of output	£ 2,502,338	3,566,280	5,323,681	6,180,276	7,190,028
Value of production	£ 1,123,130	1,624,967	2,598,305	3,177,106	3,741,964

The number of domestic receiving sets assembled in 1943-44 was 10,615 and the number of domestic chassis made was 17,621 compared with 163,821 and 123,655 respectively in 1938-39.

15. **Cotton.**—(i) *General.* Cotton has been grown in Australia since 1860, but never on a very large scale. The average annual quantity of unginned cotton produced during the five years ended 1938-39 was 18 million lb. and slightly under 14 million lb. in the next five years. Arising out of the development in the local manufacture of cotton materials and the further expansion following the outbreak of war in 1939, plans were completed for an extension of the area devoted to the cultivation of this crop, but since the commencement of the Pacific War there has been a definite downward trend. The growing of cotton is restricted to Queensland and is referred to in some detail in Chapter XX. "Agricultural Production".

(ii) *Ginning.* The ginning and marketing of cotton is controlled by the Queensland Cotton Board. The Board operates ginneries and processes by-products. The production of raw cotton is insufficient for local factory requirements and is supplemented by imports from overseas, chiefly from India and the United States of America.

(iii) *Spinning and Weaving.* The recent expansion in the spinning and weaving section of the cotton industry marks an important event in its development. New factories have been established and Australia is now producing an extensive range of

cotton goods, including duck and canvas from cotton or flax, denims, drill, etc., tyre cord and tyre cord fabric. The number of establishments engaged in cotton spinning and weaving in Australia is given in the following table for the four years ended 1943-44 in comparison with 1938-39.

COTTON SPINNING AND WEAVING : AUSTRALIA.

Items.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Number of factories	33	49	65	69	70
Number of persons engaged	3,589	6,184	7,245	7,868	7,908
Value of land and buildings	£ 703,790	1,081,586	1,311,941	1,396,304	1,427,401
Value of plant and machinery	£ 735,529	1,733,441	1,981,101	2,177,698	2,080,785
Wages paid	£ 493,109	1,032,809	1,391,800	1,655,233	1,768,268
Value of fuel used	£ 50,011	83,828	122,765	133,138	142,534
Value of materials used	£ 1,357,280	3,218,359	3,730,144	4,547,556	5,375,438
Total value of output	£ 2,385,990	5,303,018	6,401,011	7,691,120	8,930,324
Value of production	£ 978,699	1,992,156	2,548,102	3,010,426	3,412,352

16. Woollen and Tweed Mills.—(i) *Details for each State, 1943-44.* The manufacture of woollens and tweeds was established at an early period in Australian history and was under Government control, the first record in New South Wales dating back to 1801, when a few blankets were made by convicts, while manufacture in Victoria dates from 1867. The following table gives particulars for 1943-44 :—

WOOLLEN AND TWEED (INCLUDING WOOLSCOURING) MILLS, 1943-44.

Items.	N.S.W. (a)	Victoria.	Q'land. (a)	S. Aust. (b)	W.A. (a)	Tas.	Australia.
Number of factories	35	64	3	9	1	4	116
Number of persons engaged	8,165	11,834	818	1,478	163	2,400	24,858
Value of land and buildings	£ 925,017	1,517,095	(c)	138,778	(c)	219,251	d 2,867,297
Value of plant and machinery	£ 1,072,098	1,468,274	(c)	186,290	(c)	139,857	d 2,995,835
Wages paid	£ 1,876,402	2,912,626	(c)	404,314	(c)	536,390	d 5,896,320
Value of fuel used	£ 168,179	363,873	(c)	66,911	(c)	40,647	d 658,800
Value of materials used	£ 4,763,430	7,646,800	(c)	1,328,583	(c)	1,393,580	d 15,455,106
Total value of output	£ 7,801,709	12,534,481	(c)	1,977,594	(c)	2,443,470	d 25,433,289
Value of production	£ 2,960,100	4,526,808	(c)	582,100	(c)	1,009,243	d 9,319,333

(a) Excludes Woolscouring. (b) Includes Fellmongery. (c) Particulars not available for publication. (d) Includes Queensland and Western Australia.

(ii) *Total for Australia, 1938-39 and 1940-41 to 1943-44.* The extent of the woollen and tweed milling industry in Australia in the years 1940-41 to 1943-44 compared with 1938-39 is shown in the following table. The production consists chiefly of tweed cloths, flannels, rugs, blankets and yarn, all of which have acquired a reputation for purity and durability. Detailed particulars for the several States are not available for publication.

WOOLLEN AND TWEED MILLS (INCLUDING WOOLSCOURING) : AUSTRALIA.(a)

Items.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Number of factories	90	102	111	118	116
Number of persons engaged	19,608	25,031	26,362	26,436	24,858
Value of land and buildings	£ 2,380,009	2,606,603	2,791,914	2,816,658	2,867,297
Value of plant and machinery	£ 3,369,517	3,381,505	3,279,601	3,178,704	2,995,835
Wages paid	£ 2,887,907	4,402,091	5,416,150	5,967,770	5,896,320
Value of fuel used	£ 392,537	537,491	604,515	655,981	658,800
Value of materials used	£ 7,331,117	11,771,911	15,408,207	16,604,441	15,455,106
Total value of output	£ 12,514,610	21,060,244	25,467,073	27,335,995	25,433,289
Value of production	£ 4,790,956	8,750,842	9,454,351	10,075,273	9,310,383
Woollen cloth and tweed	sq. yd. 8,336,226	14,274,305	13,700,474	14,516,085	13,055,199
Worsted cloth	17,986,091	19,032,519	20,867,989	23,767,429	19,944,042
Serge	792,314	1,362,553	1,462,721	1,462,887	1,840,316
Flannel—					
For outer clothing	2,143,835	1,316,726	665,682	1,276,814	2,611,476
For underwear (pure)	1,557,373	3,465,077	4,757,520	3,813,354	2,704,382
For underwear (mixtures)	813,530	706,010	557,924	552,144	218,431
Blankets	573,795	1,146,027	1,831,515	1,768,557	1,687,729

(a) Excludes Woolscouring in New South Wales, Queensland and Western Australia but includes Fellmongery in South Australia.

17. **Hosiery and Other Knitted Goods.**—(i) *Details for each State, 1943-44.* In addition to the woollen and tweed factories, there were 341 hosiery and knitting mills operating in Australia during 1943-44. The total number of persons engaged in these establishments was 16,017 of whom 12,547 were females. Details for each State are shown in the following table :—

HOSIERY AND OTHER KNITTED GOODS, 1943-44.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	95	231	1	6	4	4	341
Number of persons engaged ..	5,030	10,378	280	83	150	96	16,017
Value of land and buildings £	771,679	1,417,746	(a)	(a)	14,082	7,650	b 2,243,181
Value of plant and machinery £	436,940	911,304	(a)	(a)	7,719	7,372	b 1,367,754
Wages paid ..	980,884	2,117,266	(a)	(a)	20,747	14,273	b 3,187,545
Value of fuel used ..	13,211	119,962	(a)	(a)	1,543	1,196	b 168,218
Value of materials used ..	2,871,873	4,735,997	(a)	(a)	73,001	53,003	b 7,873,375
Total value of output ..	4,778,157	8,576,213	(a)	(a)	114,439	73,533	b 13,771,177
Value of production ..	1,863,973	3,720,254	(a)	(a)	39,805	19,334	b 5,729,584

(a) Particulars not available for publication.

(b) Includes Queensland and South Australia.

(ii) *Total for Australia, 1938-39 and 1940-41 to 1943-44.* Comparative statistics for 1938-39 and the years 1940-41 to 1943-44 are shown in the following table :—

HOSIERY AND OTHER KNITTED GOODS : AUSTRALIA.

Items.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Number of factories ..	313	328	328	326	341
Number of persons engaged ..	18,159	19,408	17,711	15,654	16,017
Value of land and buildings ..	1,962,336	2,007,062	2,066,723	2,172,979	2,243,181
Value of plant and machinery ..	1,930,564	1,600,917	1,576,301	1,455,593	1,367,754
Wages paid ..	2,331,536	2,889,267	3,049,560	2,930,842	3,187,545
Value of fuel used ..	133,154	151,146	151,716	164,534	168,218
Value of materials used ..	4,284,216	6,986,405	7,921,884	7,599,088	7,873,375
Total value of output ..	8,226,468	12,188,378	13,838,471	13,095,997	13,771,177
Value of production ..	3,809,098	5,050,827	5,764,871	5,332,375	5,729,584

(iii) *Raw Materials used and Production, 1943-44.* The main raw materials consumed in establishments manufacturing hosiery and other knitted goods during 1943-44 consisted of woollen yarn, 12,319,678 lb.; cotton yarn, 7,417,510 lb.; silk yarn, 2,250 lb.; and artificial silk yarn, 5,340,737 lb. Production comprised 35,424,084 garments, valued at £7,208,768; 1,323,808 dozen pairs of stockings, valued at £2,150,567; and 2,104,746 dozen pairs of socks, valued at £2,195,956.

18. **Tanning, Currying and Leather Dressing.**—(i) *Details for each State, 1943-44.* In Class VII. the most important industry is tanning. Formerly the production of tanneries in Australia was confined to the coarser sorts of leathers, but there are now very few kinds which cannot be produced locally, and an export trade has been built up in some varieties.

TANNING, CURRYING AND LEATHER DRESSING, 1943-44.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.A.	Tas.	Aust.
Number of factories ..	73	40	14	8	5	2	142
Number of persons engaged ..	1,909	2,040	419	113	135	15	4,631
Value of land and buildings £	402,772	408,453	41,198	(a)	39,254	(a)	b 910,016
Value of plant and machinery £	240,027	213,672	49,868	(a)	27,086	(a)	b 543,796
Wages paid ..	605,304	683,782	126,537	(a)	42,346	(a)	b 1,495,549
Value of fuel used ..	52,573	67,529	9,257	(a)	3,257	(a)	b 135,568
Value of materials used ..	2,217,021	2,013,706	505,805	(a)	160,441	(a)	b 5,007,149
Total value of output ..	3,283,040	3,119,392	747,436	(a)	244,642	(a)	b 7,569,327
Value of production ..	1,013,446	1,038,157	232,374	(a)	80,944	(a)	b 2,426,610

(a) Particulars not available for publication.

(b) Includes South Australia and Tasmania.

(ii) *Total for Australia, 1938-39 and 1940-41 to 1943-44.* The development of the tanning industry during the years stated is shown in the following table :—

TANNING, CURRYING AND LEATHER DRESSING : AUSTRALIA.

Items.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Number of factories	132	137	139	138	142
Number of persons engaged	4,375	4,473	4,644	4,647	4,631
Value of land and buildings	£ 813,713	865,759	894,260	906,896	919,016
Value of plant and machinery	£ 523,538	544,890	548,288	531,661	543,796
Wages paid	£ 919,781	1,030,495	1,347,934	1,453,026	1,495,549
Value of fuel used	£ 87,070	100,944	116,914	124,261	135,568
Value of materials used	£ 2,983,041	4,043,285	4,969,830	5,001,880	5,007,149
Total value of output	£ 4,592,642	5,942,320	7,405,031	7,461,144	7,509,327
Value of production	£ 1,541,931	1,798,091	2,318,890	2,335,003	2,426,610

(iii) *Raw Material Used and Production, 1943-44.* The quantities of raw material used and leather produced in tanneries in each State are shown in the following table. Some leather is also produced in works other than tanneries, but this is excluded :—

TANNERIES : RAW MATERIAL USED AND PRODUCTION, 1943-44.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia. (b)
Hides.. .. No.	842,934	1,000,017	261,198	(a)	87,465	(a)	2,254,189
Skins—							
Calf	623,064	557,206	133,702	1,600	572	..	1,316,144
Goat	722,518	96,240	(a)	(a)	..	..	819,079
Sheep	1,626,478	827,856	(a)	..	..	(a)	2,757,596
Marsupial	18,499	47,676	35,305	2,540	1,443	..	105,463
Pelts treated	2,044,266	383,617	..	..	1,000	..	2,428,883
Bark used—							
Wattle tons	4,185	4,517	1,427	650	(a)	(a)	11,000
Other	498	1,511	(a)	..	(a)	..	2,423
Tanning extract used .. lb.	12,720,484	7,221,745	2,897,758	(a)	2,033,880	(a)	25,029,507
Leather made—							
Sole and Belting	12,780,088	14,217,619	5,991,801	(a)	2,106,168	..	36,062,471
Harness	1,013,641	723,233	559,880	91,389	45,122	(a)	2,433,265
Upholstery sq. ft.	(a)	(a)	..	(a)	..	..	5,482,651
Dressed and Upper from Hides—							
Sold by Measure-ment							
Patent .. sq. ft.	274,019	1,309,891	..	..	..	..	1,583,910
All Other	10,166,389	16,285,373	(a)	1,175,604	658,663	(a)	30,338,589
Sold by Weight—							
Waxed Kip .. lb.	..	50,380	(a)	29,423	2,388	(a)	111,325
All Other	838,981	856,956	(a)	37,790	..	..	2,921,905
Dressed from skins—							
Calf sq. ft.	6,336,781	3,841,579	1,125,458	..	2,434	..	11,306,252
Goat	3,298,441	(a)	(a)	..	..	..	3,735,343
Sheep	12,190,510	(a)	(a)	..	..	..	15,526,268
Marsupial	73,096	248,844	166,041	20,000	6,901	..	514,882

(a) Not available for publication.

(b) Includes particulars for States marked (a).

19. *Tailoring and Ready-made Clothing Factories.*—(i) *Details for each State, 1943-44.* The importance of this industry in each State is shown in the following table :—

TAILORING AND READY-MADE CLOTHING FACTORIES, 1943-44.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	520	348	106	100	66	20	1,160
Number of persons engaged	12,621	7,581	2,672	1,720	854	424	25,872
Value of land and buildings	£ 1,847,410	934,014	240,704	234,985	131,422	64,744	3,433,279
Value of plant and machinery	£ 281,071	198,222	40,748	24,175	13,964	9,320	567,800
Wages paid	£ 2,249,674	1,429,015	415,026	254,928	129,125	65,259	4,543,027
Value of fuel used	£ 44,817	37,495	7,418	5,738	2,565	882	98,975
Value of materials used	£ 4,329,794	3,323,293	690,604	233,892	199,557	65,924	8,843,064
Total value of output	£ 7,986,246	5,613,438	1,367,746	640,321	420,219	161,557	16,189,527
Value of production	£ 3,611,635	2,252,650	669,724	400,691	218,097	94,751	7,247,548

(ii) *Total for Australia, 1938-39 and 1940-41 to 1943-44.* Details for the four years 1940-41 to 1943-44 compared with 1938-39 are as follows :—

TAILORING AND READY-MADE CLOTHING FACTORIES : AUSTRALIA.

Items.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Number of factories	1,177	1,154	1,149	1,101	1,160
Number of persons engaged	26,499	28,205	28,378	26,043	25,872
Value of land and buildings	£ 3,175,748	£ 3,264,561	£ 3,364,458	£ 3,269,725	£ 3,453,279
Value of plant and machinery	£ 355,503	£ 420,907	£ 468,653	£ 506,188	£ 567,800
Wages paid	£ 3,168,472	£ 3,736,938	£ 4,325,388	£ 4,280,349	£ 4,543,027
Value of fuel used	£ 72,431	£ 81,121	£ 87,804	£ 90,722	£ 98,915
Value of materials used	£ 4,946,519	£ 6,834,626	£ 8,804,550	£ 9,207,864	£ 8,843,064
Total value of output	£ 9,830,646	£ 12,470,248	£ 15,649,096	£ 15,855,802	£ 16,189,527
Value of production	£ 4,811,696	£ 5,554,501	£ 6,756,742	£ 6,557,216	£ 7,247,548

20. *Dressmaking and Millinery Establishments.*—(i) *Details for each State, 1943-44.* Particulars of dressmaking and millinery establishments are given separately in the following tables :—

DRESSMAKING ESTABLISHMENTS, 1943-44.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (n)	Australia.
Number of factories	125	432	40	47	35	9	688
Number of persons engaged	1,451	7,658	748	843	751	93	11,544
Value of land and buildings	£ 201,026	£ 1,300,807	£ 70,327	£ 73,536	£ 74,207	£ 9,768	£ 1,729,671
Value of plant and machinery	£ 20,331	£ 143,491	£ 12,173	£ 11,320	£ 11,211	£ 1,535	£ 200,061
Wages paid	£ 189,895	£ 1,267,281	£ 101,185	£ 108,734	£ 85,071	£ 9,021	£ 1,761,187
Value of fuel used	£ 2,487	£ 22,243	£ 1,483	£ 2,137	£ 1,333	£ 205	£ 29,888
Value of materials used	£ 221,115	£ 2,888,755	£ 101,353	£ 121,506	£ 165,612	£ 7,105	£ 3,505,446
Total value of output	£ 524,639	£ 5,105,782	£ 259,320	£ 302,834	£ 319,971	£ 22,520	£ 6,335,066
Value of production	£ 301,037	£ 2,194,784	£ 156,484	£ 179,191	£ 153,026	£ 15,210	£ 2,999,732

(a) Includes Millinery.

MILLINERY ESTABLISHMENTS, 1943-44.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories	65	54	13	11	7	..	150
Number of persons engaged	996	723	322	192	45	..	2,278
Value of land and buildings	£ 221,746	£ 128,405	£ 38,706	£ 26,415	£ 4,315	..	£ 419,587
Value of plant and machinery	£ 15,011	£ 14,153	£ 7,178	£ 1,210	£ 196	..	£ 37,748
Wages paid	£ 167,104	£ 124,372	£ 50,251	£ 26,385	£ 4,958	..	£ 373,070
Value of fuel used	£ 4,407	£ 3,162	£ 1,178	£ 668	£ 96	..	£ 9,811
Value of materials used	£ 266,520	£ 201,935	£ 72,555	£ 38,715	£ 8,567	..	£ 588,292
Total value of output	£ 628,746	£ 453,171	£ 162,079	£ 79,053	£ 16,364	..	£ 1,339,413
Value of production	£ 358,819	£ 247,774	£ 88,346	£ 39,670	£ 7,701	..	£ 741,310

(a) Included in Dressmaking.

(ii) *Total for Australia, 1938-39 and 1940-41 to 1943-44.* Particulars of dressmaking and millinery establishments in Australia for the four years ended 1943-44 compared with 1938-39 are shown in the following table :—

DRESSMAKING AND MILLINERY ESTABLISHMENTS : AUSTRALIA.

Items.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Number of factories	869	848	837	814	838
Number of persons engaged	16,398	16,087	15,264	13,398	13,822
Value of land and buildings	£ 2,051,611	£ 2,125,668	£ 2,062,562	£ 2,029,915	£ 2,149,258
Value of plant and machinery	£ 189,263	£ 197,836	£ 200,947	£ 212,289	£ 217,809
Wages paid	£ 1,652,808	£ 1,817,518	£ 1,926,568	£ 1,913,297	£ 2,134,257
Value of fuel used	£ 33,067	£ 35,974	£ 37,341	£ 36,320	£ 39,699
Value of materials used	£ 2,609,363	£ 3,205,274	£ 3,510,770	£ 3,563,197	£ 4,093,738
Total value of output	£ 5,234,727	£ 6,149,563	£ 6,872,862	£ 6,869,242	£ 7,874,479
Value of production	£ 2,592,297	£ 2,908,315	£ 3,324,751	£ 3,269,725	£ 3,741,042

21. Shirts, Collars and Underclothing.—(i) *Details for each State, 1943-44.* Particulars of this industry are shown in the following table :—

SHIRTS, COLLARS AND UNDERCLOTHING, 1943-44.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Number of factories ..	142	97	16	27	16	..	298
Number of persons engaged ..	4,342	3,267	943	566	598	..	9,716
Value of land and buildings ..	510,208	428,672	52,796	35,790	52,137	..	1,079,603
Value of plant and machinery ..	127,580	99,091	21,007	12,668	15,250	..	275,596
Wages paid ..	715,851	559,885	136,320	82,963	79,264	..	1,574,283
Value of fuel used ..	10,715	10,001	1,956	1,563	907	..	26,162
Value of materials used ..	2,398,447	2,024,743	199,496	97,517	154,374	..	4,874,577
Total value of output ..	3,344,551	2,918,483	397,056	219,536	260,302	..	7,339,928
Value of production ..	1,135,389	882,779	195,604	120,456	104,961	..	2,439,189

(ii) *Total for Australia, 1938-39 and 1940-41 to 1943-44.* The following table shows the progress of the industry since 1938-39:—

SHIRTS, COLLARS AND UNDERCLOTHING : AUSTRALIA.

Items.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Number of factories ..	283	282	288	293	298
Number of persons engaged ..	11,081	11,078	10,740	9,851	9,716
Value of land and buildings ..	945,972	962,681	1,009,714	1,028,651	1,079,603
Value of plant and machinery ..	230,579	244,610	244,730	259,913	275,506
Wages paid ..	1,142,855	1,264,067	1,432,992	1,443,680	1,574,283
Value of fuel used ..	23,639	25,611	26,626	25,858	26,162
Value of materials used ..	2,650,779	3,497,898	4,205,433	4,353,022	4,874,577
Total value of output ..	4,435,209	5,559,702	6,623,001	6,605,309	7,339,928
Value of production ..	1,760,791	2,036,193	2,390,942	2,226,429	2,439,189

22. Boot and Shoe Making and Repairing.—(i) *Boot and Shoe Factories, 1943-44.* The boot and shoe factories hold an important place both in regard to employment afforded and extent of output. The following table relates to boot and shoe factories as distinct from those devoted to repairing and bespoke work :—

BOOT AND SHOE FACTORIES, 1943-44.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Number of factories ..	109	177	23	17	8	3	337
Number of persons engaged ..	5,779	8,423	859	931	424	82	16,498
Value of land and buildings ..	596,873	680,856	40,316	63,747	47,136	5,020	1,433,948
Value of plant and machinery ..	290,703	522,158	72,520	149,745	51,706	1,870	1,088,702
Wages paid ..	1,306,389	2,044,636	182,128	195,000	90,160	14,632	3,832,945
Value of fuel used ..	21,556	38,458	2,557	3,094	1,907	274	68,446
Value of materials used ..	2,487,840	4,191,603	376,950	369,869	185,356	47,839	7,659,457
Total value of output ..	4,404,285	7,376,946	645,044	622,834	302,666	74,491	13,426,266
Value of production ..	1,894,889	3,146,885	265,537	249,271	115,403	26,378	5,698,363

(ii) *Boot Repairing, including Bespoke Work.* The introduction of small power plants in repairing shops has brought this class of establishment within the meaning of a factory for statistical purposes. Shops using small power plants have spread rapidly throughout Australia, and in 1943-44 numbered 1,340, employing 2,611 persons. The sum of £279,571 was distributed in salaries and wages, and the output was valued at £1,296,436.

(iii) *Quantity and Value of Production.* The number and value of boots, shoes and slippers made at factories in each State are shown in the following table :—

BOOT AND SHOE FACTORIES : OUTPUT, 1943-44.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
QUANTITY.							
Boots and shoes pairs	6,478,407	8,160,178	715,424	905,715	370,776	89,328	16,719,828
Slippers ..	2,503,587	2,750,667	571,443	92,758	221,499	..	6,199,954
Uppers (c) ..	7,045	34,570	(a)	(a)	394	(a)	(b) 47,538
VALUE.							
Boots and shoes £	3,917,888	5,813,935	491,046	587,119	237,570	72,428	11,119,986
Slippers .. £	406,265	492,543	95,849	13,722	45,384	..	1,053,763
Uppers (c) .. £	5,199	30,163	(a)	(a)	214	(a)	(b) 38,880

(a) Not available for publication.

(b) Includes particulars for States marked (a).

(c) Made for other than factory use.

23. *Grain-milling.*—(i) *Details for States, 1943-44.* The following table shows the position of the grain-milling industry in each State :—

GRAIN-MILLING, 1943-44.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust. (a)	W. Aust.	Tas. (a)	Australia.
Number of factories ..	53	38	10	39	18	9	167
Number of persons engaged ..	1,360	1,095	424	532	460	122	3,993
Value of land and buildings £	823,130	661,696	179,338	183,953	250,144	67,590	2,165,851
Value of plant and machinery £	674,825	488,460	136,164	211,825	173,530	24,795	1,709,599
Wages paid ..	459,483	358,007	135,661	163,402	143,636	31,762	1,291,953
Value of fuel used ..	101,626	87,182	28,131	46,772	50,465	4,546	318,722
Value of materials used £	5,480,338	4,380,566	1,481,520	1,719,614	1,724,001	269,638	15,055,677
Total value of output £	6,668,262	5,170,202	1,807,879	2,034,716	2,061,730	319,790	18,064,579
Value of production ..	1,086,298	702,454	298,228	268,330	287,264	45,606	2,688,180

(a) The manufacture of cornflour, oatmeal, etc., was also carried on in some of these establishments.

(ii) *Production of Flour and By-products, 1938-39 and 1940-41 to 1943-44.* The production of flour by the mills in each State for the years indicated was as follows :—

GRAIN-MILLING : PRODUCTION OF FLOUR.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	Tons.(a)	Tons.(a)	Tons.(a)	Tons.(a)	Tons.(a)	Tons.(a)	Tons.(a)
1938-39 ..	547,162	436,829	84,314	146,262	138,593	19,582	1,372,732
1940-41 ..	577,759	452,812	88,851	131,325	149,925	17,057	1,417,729
1941-42 ..	448,529	312,147	92,609	117,842	135,338	20,735	1,127,200
1942-43 ..	363,452	288,134	102,864	97,826	126,274	16,812	995,362
1943-44 ..	496,853	409,190	125,603	149,892	159,799	17,153	1,358,490

(a) Tons of 2,000 lb.

The 1943-44 production of 1,358,490 tons of flour in Australia was valued at £13,380,016. In addition, 557,546 tons of bran and pollard, valued at £3,234,168 were made. The quantity of wheat ground was 69,559,014 bushels.

24. **Bakeries.**—Information regarding establishments in which the manufacture of bread, cakes, etc., was carried on in the year 1943-44 is given in the table below. It should be noted, however, that, as explained in § 1, par. 2, p. 908 the details refer only to establishments coming within the definition of a factory. For that reason there are a large number of bakehouses omitted and consequently the table does not give complete details of the industry. This is true of all other industries covered by the statistics of manufacturing production but, in view of the omission of such a large number of establishments in this instance, special mention of this fact is deemed necessary.

BAKERIES (INCLUDING CAKES AND PASTRY), 1943-44.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.(a)	Australia.
Number of factories ..	857	728	270	156	148	88	2,247
Number of persons engaged ..	4,649	3,647	1,627	1,006	540	1,144	12,613
Value of land and buildings £	2,692,609	1,490,583	476,854	302,397	203,977	347,992	5,514,412
Value of plant and machinery £	650,189	464,268	155,529	150,032	61,165	110,904	1,592,687
Wages paid ..	1,057,207	781,467	323,916	227,120	110,961	238,537	2,739,208
Value of fuel used ..	215,428	141,030	57,335	39,745	22,781	32,630	508,949
Value of materials used £	3,665,141	2,884,841	1,316,748	759,505	438,020	797,861	9,862,116
Total value of output £	6,200,274	4,887,900	2,177,069	1,271,176	746,937	1,201,592	16,484,957
Value of production ..	2,319,705	1,862,038	802,986	471,926	286,136	371,101	6,113,892

(a) Includes Confectionery.

25. **Sugar-mills.**—(i) *Details for 1943-44.* The following table shows the position of the cane-crushing branch of the sugar-making industry in New South Wales and Queensland in 1943-44. Sugar-cane is not grown in the other States. Details regarding the area, yield, etc., of sugar-cane will be found in Chapter XX. "Agricultural Production".

SUGAR-MILLS, 1943-44.

Items.	N.S.W.	Queensland.	Australia.
Number of factories ..	3	33	36
Number of persons engaged ..	317	3,834	4,151
Value of land and buildings ..	£ 262,376	1,106,838	1,369,214
Value of plant and machinery ..	£ 953,267	6,814,104	7,767,371
Wages paid ..	£ 138,165	1,266,422	1,404,587
Value of fuel used ..	£ 36,769	155,394	192,163
Value of materials used ..	£ 480,316	7,928,004	8,408,320
Total value of output ..	£ 718,341	10,136,588	10,854,929
Value of production ..	£ 201,256	2,053,190	2,254,446

The products of the sugar-mill are raw sugar and molasses, the former being sent to the refineries in different parts of Australia for further treatment. Part of the molasses produced is used for distillation, part is prepared for human consumption, part is turned into food-cake for cattle, part is used for manuring land, and the balance is either burnt as fuel or is allowed to run to waste. The latter, however, is a diminishing quantity.

(ii) *Progress of Industry.* (a) *New South Wales.* The following table gives details of this industry in New South Wales since 1911:—

SUGAR-MILLS : NEW SOUTH WALES.

Items.	1911.	1938-39.	1941-42.	1942-43.	1943-44.
Number of factories ..	4	3	3	3	3
Number of employees ..	469	212	260	312	317
Cane crushed .. tons	147,799	337,038	359,433	338,013	290,364
Sugar produced .. "	17,299	45,106	48,336	44,290	37,442
Molasses produced gals.	796,440	1,489,090	1,771,200	140,000	135,040

The concentration of cane-crushing in establishments fitted with modern machinery has caused the closing of the small home mill and thereby reduced the number of mills operating. The Government assistance, referred to in Chapter XX. "Agricultural Production", has resulted in considerable progress in the cultivation of sugar-cane and increased activity in milling. Particulars regarding cane crushed and sugar produced embodied in these tables refer to the quantities treated during the years ended 30th June, irrespective of the season in which the cane was grown; consequently the figures relating to cane crushed and sugar produced may differ slightly from those given in Chapter XX. "Agricultural Production" which relate to harvest years.

(b) *Queensland.* Details for Queensland for 1911, 1938-39 and the three years 1941-42 to 1943-44 are given hereunder:—

SUGAR-MILLS : QUEENSLAND.

Items.	1911.	1938-39.	1941-42.	1942-43.	1943-44.
Number of factories ..	49	33	33	32	33
Number of persons engaged ..	4,295	4,419	4,100	4,114	3,834
Cane crushed .. tons	1,534,451	5,432,193	4,794,237	4,353,488	3,397,617
Sugar produced .. "	173,296	775,064	697,644	605,609	486,423
Molasses—					
Sold to distillers and others .. gals.	2,393,669	8,275,887	12,882,397	10,457,747	7,345,596
Used as fodder .. "	789,564	4,237,196	3,490,937	3,071,918	3,055,728
Used as manure .. "	223,000	3,293,543	1,510,650	1,857,300	2,122,220
Run to waste .. "	1,847,333	498,926	55,237	31,153	97,043
Burnt as fuel .. "		3,748,590	1,232,338	3,024,370	2,176,926
Sold or used for other purposes .. "		232,049	158,821	303,240	441,522
In stock .. "	1,197,626	..	..	..	..
Total molasses .. "	6,451,192	20,286,191	19,330,380	18,745,728	15,239,635

26. *Sugar Refineries.*—The establishment of the sugar-refining industry considerably antedates the establishment of the sugar-milling industry, the raw material operated on in the earlier years coming chiefly from Mauritius and the East. In 1943-44 there were two sugar refineries in each of the States of Victoria and Queensland, and one in each of the States of New South Wales, South Australia and Western Australia. The quantity of raw sugar treated amounted to 436,656 tons, for a yield of 418,584 tons of refined sugar, valued at £13,391,010.

27. *Confectionery Factories.*—(i) *Details for each State, 1943-44.* The figures for 1943-44 are given hereunder:—

SUGAR CONFECTIONERY FACTORIES, (a) 1943-44.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (b)	Australia.
Number of factories ..	75	85	10	24	8	1	212
Number of persons engaged ..	3,149	2,479	489	344	290	1	6,752
Value of land and buildings .. £	1,023,982	642,729	215,764	94,518	(c)	(c)	(d) 2,046,082
Value of plant and machinery .. £	773,224	508,684	113,150	50,161	(c)	(c)	(d) 1,511,970
Wages paid ..	748,529	546,025	103,686	59,095	(c)	(c)	(d) 1,515,612
Value of fuel used ..	76,565	61,904	20,886	15,841	(c)	(c)	(d) 24,733
Value of materials used ..	2,737,882	1,993,469	465,463	213,490	(c)	(c)	(d) 5,624,475
Total value of output ..	4,938,219	3,748,627	1,034,126	363,144	(c)	(c)	(d) 10,453,162
Value of production ..	2,123,772	1,693,254	547,777	133,813	(c)	(c)	(d) 4,643,954

(a) Includes Chocolate and Ice Cream. (b) Ice Cream factory—Other Confectionery included in Bakeries. (c) Not available for publication. (d) Includes particulars of States marked (c).

(ii) *Total for Australia, 1938-39 and 1940-41 to 1943-44.* Particulars of the confectionery industry during the last four years are compared with 1938-39 in the following table :—

SUGAR CONFECTIONERY FACTORIES(a) : AUSTRALIA.

Items.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Number of factories	209	202	186	188	212
Number of persons engaged	8,276	8,193	7,481	6,414	6,752
Value of land and buildings	£ 2,079,601	2,172,872	1,991,097	1,999,127	2,046,082
Value of plant and machinery	£ 1,854,398	1,828,898	1,653,210	1,551,780	1,511,970
Wages paid	£ 1,231,375	1,360,498	1,403,263	1,368,343	1,515,612
Value of fuel used	£ 144,349	157,744	157,975	171,384	184,733
Value of materials used	£ 3,704,774	4,341,473	4,105,368	4,845,678	5,624,475
Total value of output	£ 7,107,045	8,100,217	7,962,482	9,257,737	10,453,162
Value of production	£ 3,257,922	3,601,000	3,639,139	4,240,675	4,643,954

(a) See notes to previous table.

Confectionery establishments in Tasmania have been combined with bakeries in order to conceal confidential information. Production in Australia is more than sufficient to supply local requirements.

28. *Jam and Fruit Preserving, Pickles, Sauces and Vinegar Factories.*—(i) *Details for each State, 1943-44.* The following table gives particulars of factories included in this class for 1943-44 :—

JAM AND FRUIT PRESERVING, PICKLES, ETC., FACTORIES, 1943-44.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	53	51	13	14	11	10	152
Number of persons engaged	3,549	5,005	489	835	306	1,232	11,416
Value of land and buildings	£ 653,028	966,492	57,441	121,895	54,528	202,466	2,055,850
Value of plant and machinery	£ 452,911	514,836	58,362	50,989	51,482	67,374	1,195,954
Wages paid	£ 893,097	1,231,150	104,768	157,730	55,785	298,245	2,740,715
Value of fuel used	£ 82,908	119,665	8,084	17,699	7,591	34,049	269,996
Value of materials used	£ 3,588,315	5,727,610	556,435	628,961	225,989	1,159,325	11,886,635
Total value of output	£ 5,179,193	8,238,373	765,817	915,344	328,244	1,558,535	16,985,506
Value of production	£ 1,507,970	2,391,098	201,298	268,684	94,664	365,161	4,828,875

(ii) *Total for Australia, 1938-39 and 1940-41 to 1943-44.* Particulars in connexion with these establishments in Australia for the four years 1940-41 to 1943-44 compared with 1938-39 are given hereunder :—

JAM AND FRUIT PRESERVING, PICKLES, ETC., FACTORIES : AUSTRALIA.

Items.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Number of factories	123	138	139	143	152
Number of persons engaged	6,476	7,699	8,761	9,868	11,416
Value of land and buildings	£ 1,382,150	1,546,101	1,584,591	1,667,493	2,055,850
Value of plant and machinery	£ 720,639	814,470	800,189	913,917	1,195,954
Wages paid	£ 1,148,991	1,483,118	1,822,020	2,225,581	2,740,715
Value of fuel used	£ 97,521	129,969	156,487	206,461	269,996
Value of materials used	£ 4,799,515	6,660,681	7,867,943	9,605,024	11,886,635
Total value of output	£ 7,230,914	10,303,543	12,010,694	14,009,177	16,985,506
Value of production	£ 2,333,878	3,512,893	3,986,264	4,197,692	4,828,875

The progress of the jam-making industry was very marked during the war years of 1914-19, and a peak of 142 million lb. was reached in 1918-19. During the succeeding years the production varied considerably, falling to 66,120,000 lb. in 1930-31. During the 1939-45 War production again expanded and a record output of 171 million lb. was attained in 1943-44. The output of preserved fruit reached the record dimensions of 157,761,000 lb. in 1937-38. Production in 1943-44 was lower at 120,861,000 lb. The production of pickles and sauces again showed a satisfactory improvement.

(iii) *Production.* The following table shows the quantity and value of jams, pickles and sauces manufactured in each State in 1943-44:—

JAMS, PRESERVED FRUIT, PICKLES AND SAUCES : OUTPUT, 1943-44.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia. (b)
QUANTITY.							
Jams and Jellies .. '000 lb.	54,667	70,740	8,781	10,960	1,347	24,458	170,953
Fruit Pulp—							
Consumed .. in own							
works .. cwt.	37,255	31,737	(a)	87,275	4,380	(a)	b168,861
For sale or addition to							
stock .. cwt.	28,949	51,799	(a)	4,521	85,620	(a)	b383,075
Tomato Pulp—							
Consumed .. in own							
works .. cwt.	10,527	99,805	665	20,945	3,089	..	135,031
For sale or addition to							
stock .. cwt.	44,538	373,864	..	5,160	2,436	30,040	456,038
Fruit, preserved .. '000 lb.	19,271	80,373	10,190	5,944	248	4,893	120,861
Pickles .. '000 pints	4,843	3,556	(a)	1,384	(a)	..	b9,992
Sauces	14,571	19,258	1,162	3,159	(a)	(a)	b39,306
VALUE.							
Jams and Jellies .. £	1,432,527	1,883,380	284,165	283,698	36,170	689,030	4,608,970
Fruit, preserved .. £	499,720	1,780,293	260,775	128,113	5,035	102,496	2,776,432
Pickles £	249,443	142,895	(a)	65,777	(a)	..	464,403
Sauces £	822,641	771,806	57,359	105,916	(a)	(a)	1,799,179

(a) Not available for publication.

(b) Includes particulars for States marked (a).

29. *Bacon-curing Factories.*—(i) *Details for each State, 1943-44.* The table hereunder gives particulars of factories engaged in bacon-curing in each State for 1943-44:—

BACON-CURING FACTORIES, 1943-44.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	28	18	7	12	6	11	82
Number of persons engaged ..	560	578	813	323	214	73	2,561
Value of land and buildings £	231,956	217,194	205,764	107,316	44,819	26,470	833,519
Value of plant and machinery £	59,307	96,762	124,985	36,639	22,900	9,215	349,808
Wages paid ..	170,184	170,127	233,447	81,475	63,770	17,262	736,265
Value of fuel used ..	22,933	27,869	27,578	21,825	13,684	2,474	116,361
Value of materials used £	2,049,861	1,488,109	2,554,649	769,509	882,637	200,537	7,945,302
Total value of output £	2,495,410	1,778,395	2,923,063	923,427	993,391	236,671	9,350,357
Value of production .. £	422,616	262,417	340,836	132,093	97,070	33,662	1,288,694

(ii) *Quantity and Value of Production.* The number of pigs cured and the quantity and value of the production of factories in each State for 1943-44 are given in the following table :—

BACON-CURING FACTORIES : PIGS CURED AND PRODUCTION, 1943-44.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
PIGS CURED.							
Pigs cured on own account No.	224,656	198,395	348,065	102,466	93,887	23,913	991,382
Pigs cured on commission „	789	2,370	525	4,458	107	474	8,763
Total .. „	225,445	200,765	348,590	106,924	94,054	24,387	1,000,165
PRODUCTS.							
Bacon and ham .. '000 lb.	30,680	21,198	26,701	9,896	9,681	2,392	100,548
Lard .. „	962	1,228	2,611	441	614	131	5,987
VALUE.							
Bacon and ham (a) £	2,123,290	1,360,081	1,878,515	603,628	540,670	157,005	6,063,189
Lard .. „ £	26,502	42,006	63,039	10,131	13,957	3,820	159,455

(a) Partly estimated.

Bacon and ham and other pig products are dealt with more fully in Chapter XXI. "Farmyard, Dairy and Bee Products".

30. *Butter, Cheese and Condensed Milk Factories.*—(i) *Details for each State, 1943-44.* The following table gives particulars of butter, cheese and condensed milk factories in each State :—

BUTTER, CHEESE AND CONDENSED MILK FACTORIES, 1943 44.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.A.	Tas.	Australia.
Number of factories ..	117	152	99	47	17	40	472
Number of persons engaged ..	1,937	3,811	1,710	714	265	275	8,712
Value of land and buildings £	733,815	1,448,699	753,912	212,849	79,001	132,222	3,360,498
Value of plant and machinery £	921,990	1,367,977	859,570	152,513	81,998	115,017	3,499,065
Wages paid ..	558,102	1,160,780	476,398	181,194	74,094	72,440	2,526,017
Value of fuel used ..	183,005	329,981	114,699	43,555	22,153	14,818	708,211
Value of materials used £	8,781,359	11,936,872	10,736,313	1,989,682	1,127,105	729,499	35,300,830
Total value of output £	9,802,228	14,475,120	11,815,263	2,389,273	1,317,951	903,469	40,703,304
Value of production ..	£ 837,864	2,208,267	964,251	356,036	168,603	159,152	4,694,263

(ii) *Total for Australia, 1938-39 and 1940-41 to 1943-44.* The progress during the four years 1940-41 to 1943-44 of industries included in this group is compared with 1938-39 in the following table :—

BUTTER, CHEESE AND CONDENSED MILK FACTORIES : AUSTRALIA.

Items.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Number of factories ..	523	518	499	487	472
Number of persons engaged ..	6,851	7,686	8,234	8,584	8,712
Value of land and buildings ..	£ 2,880,323	3,143,908	3,258,229	3,345,560	3,360,498
Value of plant and machinery ..	£ 3,066,840	3,388,674	3,520,312	3,521,161	3,499,065
Wages paid ..	£ 1,569,531	1,871,871	2,135,819	2,367,324	2,526,017
Value of fuel used ..	£ 380,501	474,110	582,207	671,072	708,211
Value of materials used ..	£ 29,161,983	30,153,314	28,089,005	33,372,425	35,300,830
Total value of output ..	£ 33,094,851	34,804,895	33,900,249	37,708,383	40,703,304
Value of production ..	£ 3,543,367	4,177,471	4,329,037	4,664,886	4,694,263

(iii) *Quantity and Value of Production.* The next table shows the quantities and values of butter, cheese and condensed milk produced and the quantities of milk used in their production during 1943-44. These details are restricted to factory production and therefore exclude farm output.

BUTTER, CHEESE AND CONDENSED MILK FACTORIES : PRODUCTION, 1943-44.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
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.MILK USED (,000 OMITTED).

For the manufacture of—							
Butter .. gals.	180,960	216,290	204,219	34,667	28,272	15,184	679,592
Cheese .. "	5,388	26,480	21,664	18,467	1,555	2,338	75,892
Condensed, &c., Milk .. "	17,166	42,048	..	(a)	(a)	(a)	(b) 63,253

PRODUCTS (,000 OMITTED).

Butter .. lb.	87,857	109,457	101,416	18,027	13,786	7,325	337,868
Cheese .. "	5,374	26,584	(c) 24,042	19,726	1,773	2,356	79,855
Condensed and concentrated milk .. lb.	27,145	75,164	..	(a)	(a)	..	bir 6,610
Powdered milk .. "	(a)	33,352	..	..	(a)	..	(b) 42,556

VALUE (,000 OMITTED).

Butter .. £	6,006	7,657	7,214	1,299	1,016	642	23,834
Cheese .. £	257	1,142	(c) 997	803	85	112	3,396
Condensed and concentrated milk .. £	601	2,146	..	(a)	(a)	..	(b) 3,201
Powdered milk .. £	(a)	1,503	..	..	(a)	..	(b) 2,018

(a) Not available for publication. (b) Includes particulars for States marked (a). (c) Includes 1,720,440 lb. of cheese, valued at £69,846, made in establishments not classified as factories.

The butter, cheese and condensed milk industries are dealt with more fully in Chapter XXI. "Farmyard, Dairy and Bee Products".

31. *Meat and Fish Preserving Works.*—The industries included in this group are engaged chiefly in the freezing and preserving of meat. Works have been established at the seaports for the purpose of handling beef, lamb and mutton for export, and insulated space for the carriage of chilled and frozen produce is provided by steamship companies trading between Australia and other parts of the world. The substitution of chilled for frozen meat exported has already been referred to in Chapter XIX. "Pastoral Production".

MEAT AND FISH PRESERVING WORKS,(a) 1943-44.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	14	12	13	3	6	3	51
Number of persons engaged ..	1,171	1,127	5,691	282	61	45	8,377
Value of land and buildings £	151,063	143,325	1,563,516	18,912	21,798	18,930	1,917,544
Value of plant and machinery £	134,582	86,162	932,150	9,166	23,887	16,293	1,202,240
Wages paid ..	329,312	327,416	2,017,517	60,457	20,602	11,215	2,766,519
Value of fuel used ..	53,178	31,222	203,232	4,099	4,031	2,106	297,868
Value of materials used ..	2,038,126	2,320,668	9,690,938	461,485	74,869	19,922	14,606,008
Total value of output ..	2,828,833	3,311,797	12,499,013	574,334	108,281	51,014	19,373,272
Value of production ..	737,529	959,907	2,604,843	108,750	29,381	28,986	4,469,396

(a) Includes meat extracts.

Particulars regarding the quantities and values of beef, mutton and lamb preserved by cold process exported from Australia over a series of years will be found in Chapter XIX. "Pastoral Production".

32. *Breweries.*—(i) *Details for each State, 1943-44.* The following table gives particulars relating to breweries in each State:—

BREWERIES, 1943-44.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	6	8	6	5	6	2	33
Number of persons engaged ..	1,065	1,374	478	305	548	103	3,873
Value of land and buildings £	1,168,014	756,680	502,028	(a)	282,962	(a)	3,196,938
Value of plant and machinery £	705,566	830,710	384,367	(a)	270,259	(a)	2,595,508
Wages paid ..	362,744	556,889	168,508	(a)	209,055	(a)	1,444,363
Value of fuel used ..	99,543	98,086	50,575	(a)	48,248	(a)	339,482
Value of materials used £	1,292,536	1,383,450	424,041	(a)	478,900	(a)	4,015,503
Total value of output £	3,784,024	2,621,378	1,369,348	(a)	1,214,686	(a)	9,069,828
Value of production ..	2,391,895	1,139,842	894,731	(a)	687,532	(a)	5,614,843

(a) Not available for publication.

(b) Includes particulars for States marked (a).

(ii) *Total for Australia, 1938-39 and 1940-41 to 1943-44.* The next table shows the extent of this industry for 1938-39 and the four years 1940-41 to 1943-44:—

BREWERIES : AUSTRALIA.

Items.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Number of factories ..	34	33	33	33	33
Number of persons engaged ..	3,698	4,107	4,179	3,910	3,873
Value of land and buildings £	2,801,147	3,048,505	3,199,623	3,201,121	3,196,938
Value of plant and machinery £	2,737,042	2,881,920	2,856,982	2,702,038	2,595,508
Wages paid ..	1,215,473	1,377,754	1,462,743	1,424,451	1,444,363
Value of fuel used ..	251,286	283,288	310,574	317,256	339,482
Value of materials used £	3,406,572	4,347,747	4,821,610	4,000,863	4,015,503
Total value of output ..	9,030,309	10,786,546	11,212,151	9,736,720	9,969,828
Value of production ..	5,372,451	6,155,511	6,079,967	5,418,601	5,614,843

The quantity of ale, stout and beer brewed fell from 73.7 million gallons in 1928-29 to 49.8 million gallons in 1931-32, but thereafter increased each year to 109,155,107 gallons in 1941-42. The average annual consumption of ale, stout and beer prior to the economic depression of the early thirties exceeded 11 gallons per head of the population; it dropped to 7.32 gallons in 1931-32, increased to 13.76 gallons in 1941-42 and declined again to 12.94 gallons in 1944-45.

(iii) *Materials Used and Production.* The table below shows the quantities of raw materials used and the quantity and value of ale, stout and beer brewed in each State during 1943-44.

BREWERIES : MATERIALS USED AND PRODUCTION, 1943-44.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
RAW MATERIAL USED.							
Malt .. bushels	1,098,320	956,171	397,212	(b)	345,345	(b)	(c)3,146,215
Hops .. lb.	839,366	798,410	304,764	(b)	216,727	(b)	(c)2,413,458
Sugar .. cwt.	168,220	121,580	46,520	(b)	27,980	(b)	(c)402,240

RAW MATERIAL USED PER 1,000 GALLONS OF ALE, STOUT AND BEER PRODUCED.

Malt .. bushels	28.73	31.26	30.99	34.97	35.71	38.41	31.13
Hops .. lb.	21.96	26.10	23.78	29.93	22.41	20.65	23.88
Sugar .. cwt.	4.40	3.97	3.63	4.28	2.89	2.43	3.38

ALE, STOUT AND BEER BREWED.

Quantity gallons	38,224,792	30,590,447	12,815,605	(b)	9,670,622	(b)	101,072,708
Value (a) £	3,752,663	2,590,000	1,364,840	(b)	1,179,787	(b)	10,851,427

(a) Excludes Excise duty.
States marked (b).

(b) Not available for publication.

(c) Includes particulars for

33. **Distilleries.**—Distilleries are located in all the States except Western Australia and Tasmania. The following table, which has been compiled from returns of the Excise Branch of the Department of Trade and Customs, shows the materials used in distilleries in Australia and the quantity of spirits distilled therefrom for the years 1940-41 to 1943-44 compared with the year 1938-39.

DISTILLERIES: AUSTRALIA.

Particulars.	Unit of Quantity.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
PRINCIPAL MATERIALS USED.						
Barley Malt	bushel	89,528	99,041	192,979	220,081	240,386
Barley	"	80,548	84,094	77,694	143,637	170,954
Wheat	"	"	775	16,921	41,432	706,712
Malted Wheat	"	"	"	6,170	10,633	11,495
Maize	"	7,643	2	79,846	27,832	18,208
Molasses	cwt.	1,405,271	1,770,945	1,620,391	1,418,002	1,086,747
Sugar	"	"	725	987,663	1,330,034	1,078,714
Wine	gal.	11,364,208	11,503,804	10,474,912	11,407,752	12,631,059
Grapes	cwt.	170,818	120,970	75,169	169,846	203,408
Raisins	"	19,521	3,300	28,935	22,279	15,031

SPIRITS DISTILLED FROM—

		proof gal.	proof gal.	proof gal.	proof gal.	proof gal.
Barley and other Grain Malt	"	434,578	564,234	958,006	1,122,660	3,710,810
Molasses and Sugar	"	7,025,416	9,054,921	17,056,871	22,199,638	18,566,633
Wine and Wine Lees	"	2,249,265	1,934,129	2,170,582	2,851,301	2,365,028
Other	"	7,305	"	76,260	53,614	76,304
Total	"	9,716,564	11,553,284	20,261,719	26,227,213	24,718,775
Spirits denatured	"	4,553,152	7,054,797	14,758,311	19,416,985	18,391,976

34. **Tobacco, etc., Factories.**—(i) *Details for each State, 1943-44.* During 1943-44 there were 25 establishments in which the manufacture of tobacco, cigars or cigarettes was carried on. There are no such factories in Tasmania.

TOBACCO, CIGAR AND CIGARETTE FACTORIES, 1943-44.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Australia.
Number of factories	8	11	4	1	1	25
Number of persons engaged	2,969	1,949	36	8	148	5,112
Value of land and buildings	£ 605,989	£ 337,271	(a)	(a)	(a)	(b) 968,985
Value of plant and machinery	£ 493,848	£ 279,290	(a)	(a)	(a)	(b) 789,755
Wages paid	£ 724,912	£ 485,630	(a)	(a)	(a)	(b) 1,243,646
Value of fuel used	£ 30,083	£ 13,373	(a)	(a)	(a)	(b) 44,366
Value of materials used	£ 6,922,959	£ 3,089,982	(a)	(a)	(a)	(b) 10,087,241
Total value of output	£ 8,529,942	£ 4,269,847	(a)	(a)	(a)	(b) 12,934,104
Value of production	£ 1,576,900	£ 1,166,492	(a)	(a)	(a)	(b) 2,802,497

(a) Not available for publication.

(b) Includes particulars for States marked (a).

(ii) *Total for Australia, 1938-39 and 1940-41 to 1943-44.* This industry was among the first to be established in Australia. In 1861 New South Wales had eleven factories, producing 177,744 lb. of manufactured tobacco; in the same year there was one factory in Victoria, but the quantity of tobacco manufactured is not available. The Australian market has for many years been largely supplied with local manufactures from the imported leaf. Imports during 1943-44 comprised—manufactured tobacco 328,030 lb., cigars 41 lb., and cigarettes 74,143 lb., and the quantities manufactured in Australian

TOBACCO, CIGAR AND CIGARETTE FACTORIES : AUSTRALIA.

LEAF USED AND PRODUCTION.

For many years the production of locally-grown leaf was comparatively small, and manufacturers were dependent on imported leaf for the supply of their raw material. Increased duties stimulated local production, and the quantity of Australian leaf used by manufacturers rose from 1.2 million lb. in 1929-30 to over 3 million lb. in 1930-31; in 1932-33 the quantity of local leaf used fell to 2.7 million lb., but it has since risen to 4.95 million lb. in 1943-44. In this connexion, see Chapter XX. "Agricultural Production".

35. Sawmills, etc.—(i) *Details for States, 1943-44.* The most important industry in Class X. is that of sawmilling. As separate particulars of forest sawmills are not available for some of the States, both forest and town sawmills, as well as plywood and bark mills, have been combined in the following table :—

SAWMILLS, FOREST AND TOWN PLYWOOD AND BARK MILLS, 1943-44.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	606	296	334	50	114	222	1,622
Number of persons engaged	5,849	3,670	5,557	1,229	2,095	1,623	20,023
Value of land and buildings £	810,233	402,522	392,450	239,265	196,690	122,249	2,163,399
Value of plant and machinery ..	£ 822,888	741,080	663,421	193,587	422,652	319,133	3,162,761
Wages paid ..	£ 1,465,750	991,165	1,405,117	314,764	542,984	367,403	5,087,183
Value of fuel used ..	£ 96,702	71,170	66,626	18,849	41,908	29,057	325,212
Value of materials used ..	£ 3,881,526	2,143,743	2,523,423	1,024,146	722,519	575,139	10,871,168
Total value of output ..	£ 6,323,086	3,942,106	4,746,595	1,591,819	1,526,759	1,147,749	19,278,114
Value of production ..	£ 2,344,858	1,727,193	2,150,546	548,502	762,282	542,353	8,081,734

(ii) *Total for Australia, 1938-39 and 1940-41 to 1943-44.* The development of forest and other sawmills, etc., since 1938-39 is shown in the following table :—

SAWMILLS, FOREST AND TOWN ; PLYWOOD AND BARK MILLS : AUSTRALIA.

Items.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Number of establishments	1,660	1,594	1,627	1,558	1,624
Number of persons engaged	19,104	20,607	21,046	19,900	20,023
Value of land and buildings	2,654,611	2,001,873	2,083,313	2,093,726	2,163,399
Value of plant and machinery	2,785,716	2,892,865	2,975,484	2,979,732	3,162,761
Wages paid	3,634,627	4,214,338	4,701,900	4,839,413	5,087,183
Value of fuel used	225,782	260,061	292,024	308,868	325,212
Value of materials used	8,522,805	9,550,006	9,946,601	9,463,503	10,871,568
Total value of output	14,537,888	16,573,182	17,824,477	17,395,542	19,278,114
Value of production	5,789,211	6,703,115	7,585,852	7,641,671	8,087,734

The sawmill output of native timber, which declined from 740 million super. feet in 1925-26 to the abnormally low figure of 237 million super. feet during the depth of the depression, recovered to 717 million super. feet in 1938-39 and stood at 850 million super. feet in 1943-44. Further reference is made to the sawmilling industry in Chapter XXII. "Forestry".

36. Furniture, Cabinet-making, and Upholstery.—These industries constitute the principal manufactures in Class XI. The following table gives particulars for each State in 1943-44 :—

FURNITURE, CABINET-MAKING AND UPHOLSTERY FACTORIES, 1943-44.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Number of factories ..	189	244	77	65	59	36	670
Number of persons engaged ..	2,718	1,741	1,054	787	421	302	7,023
Value of land and buildings ..	£ 656,538	£ 519,831	£ 207,217	£ 121,168	£ 89,247	£ 46,105	£ 1,640,106
Value of plant and machinery ..	£ 165,691	£ 98,420	£ 55,226	£ 51,001	£ 21,516	£ 14,003	£ 405,857
Wages paid ..	£ 776,236	£ 399,547	£ 266,258	£ 171,422	£ 83,270	£ 53,728	£ 1,750,461
Value of fuel used ..	£ 24,041	£ 12,145	£ 7,310	£ 6,612	£ 2,402	£ 1,412	£ 53,922
Value of materials used ..	£ 1,176,595	£ 650,221	£ 425,172	£ 277,605	£ 142,611	£ 73,593	£ 2,745,797
Total value of output ..	£ 2,430,542	£ 1,450,627	£ 860,870	£ 578,481	£ 295,246	£ 166,988	£ 5,782,754
Value of production ..	£ 1,229,906	£ 788,261	£ 428,388	£ 294,264	£ 150,233	£ 91,983	£ 2,983,935

37. Printing Works.—Printing and bookbinding works rank high in importance among the industries of Australia, and in 1943-44 afforded employment for about 21,600 employees, and paid nearly £5,821,000 in salaries and wages, while the value of output amounted to £18,187,000. The first table below gives particulars of establishments engaged in general printing in each State for 1943-44. These establishments include those engaged in lithographic printing, the printing of periodicals, excepting those which may be produced by newspapers, bookbinding, paper ruling and linotyping. Government printing works are included, but establishments producing newspapers and weekly publications are shown separately in the second table to follow :—

GOVERNMENT AND GENERAL PRINTING WORKS, 1943-44.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Number of factories ..	316	358	79	63	62	18	896
Number of persons engaged ..	5,596	5,088	1,498	1,055	720	345	14,302
Value of land and buildings ..	£ 1,477,826	£ 1,583,507	£ 333,912	£ 220,716	£ 108,828	£ 77,465	£ 3,892,254
Value of plant and machinery ..	£ 1,122,367	£ 910,657	£ 193,601	£ 102,695	£ 133,043	£ 69,459	£ 2,591,822
Wages paid ..	£ 1,441,350	£ 1,248,678	£ 337,911	£ 223,127	£ 152,879	£ 92,991	£ 3,496,936
Value of fuel used ..	£ 39,740	£ 40,078	£ 10,555	£ 7,606	£ 5,143	£ 2,170	£ 105,292
Value of materials used ..	£ 2,063,319	£ 1,813,513	£ 435,256	£ 253,120	£ 211,680	£ 79,895	£ 4,856,823
Total value of output ..	£ 4,832,811	£ 4,085,141	£ 1,030,127	£ 619,598	£ 526,015	£ 232,091	£ 11,325,783
Value of production ..	£ 2,729,752	£ 2,231,550	£ 584,276	£ 358,872	£ 309,192	£ 150,026	£ 6,363,668

ESTABLISHMENTS PRODUCING NEWSPAPERS (INCLUDING WEEKLY PUBLICATIONS), 1943-44.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	184	118	52	35	30	7	426
Number of persons engaged ..	3,460	1,700	1,009	492	381	234	7,276
Value of land and buildings ..	£ 1,723,912	£ 785,006	£ 512,555	£ 355,689	£ 250,434	£ 39,819	£ 3,667,415
Value of plant and machinery ..	£ 1,490,217	£ 466,219	£ 298,932	£ 169,063	£ 78,940	£ 35,021	£ 2,538,392
Wages paid ..	£ 1,126,540	£ 556,774	£ 295,222	£ 153,347	£ 130,416	£ 61,327	£ 2,323,626
Value of fuel used ..	£ 49,618	£ 26,862	£ 18,590	£ 7,088	£ 9,100	£ 2,566	£ 113,824
Value of materials used ..	£ 1,354,266	£ 696,729	£ 237,741	£ 152,644	£ 119,662	£ 33,699	£ 2,594,741
Total value of output ..	£ 3,563,343	£ 1,634,248	£ 735,832	£ 397,258	£ 358,463	£ 171,724	£ 6,860,868
Value of production ..	£ 2,159,459	£ 910,657	£ 479,501	£ 237,526	£ 229,701	£ 135,459	£ 4,152,393

38. Tyres, Motor and Cycle.—(i) *Details for each State, 1943-44.* The following table gives particulars of this industry for each State during 1943-44 :—

TYRES, MOTOR AND CYCLE, 1943-44.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	91	65	29	20	17	13	235
Number of persons engaged ..	3,293	2,388	190	111	96	82	6,160
Value of land and buildings ..	£ 689,646	£ 512,170	£ 70,971	£ 42,649	£ 37,624	£ 30,311	£ 1,383,371
Value of plant and machinery ..	£ 409,713	£ 528,910	£ 20,588	£ 12,522	£ 10,154	£ 7,527	£ 989,414
Wages paid ..	£ 1,047,664	£ 806,916	£ 38,498	£ 24,661	£ 22,393	£ 14,191	£ 1,954,323
Value of fuel used ..	£ 123,163	£ 132,344	£ 6,257	£ 2,667	£ 3,251	£ 1,977	£ 269,659
Value of materials used ..	£ 3,204,102	£ 3,144,914	£ 106,568	£ 52,595	£ 44,265	£ 25,441	£ 6,577,885
Total value of output ..	£ 4,682,213	£ 4,804,961	£ 207,208	£ 103,976	£ 93,708	£ 61,668	£ 9,953,734
Value of production ..	£ 1,354,948	£ 1,527,793	£ 94,383	£ 48,714	£ 46,192	£ 34,250	£ 3,106,190

(a) Includes Rubber Boots and Shoes and Other Rubber Goods.

(ii) *Total for Australia, 1938-39 and 1940-41 to 1943-44.* The development of this industry since 1938-39 is shown in the following table :—

TYRES, MOTOR AND CYCLE(a) : AUSTRALIA.

Items.	1938-39.	1940-41.	1941-42.	1942-43.	1943-44.
Number of factories ..	262	242	226	219	235
Number of persons engaged ..	5,723	6,411	6,793	5,378	6,160
Value of land and buildings ..	£ 1,444,131	£ 1,446,074	£ 1,473,719	£ 1,359,890	£ 1,383,371
Value of plant and machinery ..	£ 1,174,012	£ 1,261,985	£ 1,236,924	£ 1,018,844	£ 989,414
Wages paid ..	£ 1,196,897	£ 1,441,930	£ 1,822,486	£ 1,611,469	£ 1,954,323
Value of fuel used ..	£ 210,920	£ 223,498	£ 262,595	£ 245,487	£ 269,659
Value of materials used ..	£ 3,645,799	£ 4,894,576	£ 5,865,109	£ 5,753,589	£ 6,577,885
Total value of output ..	£ 6,186,688	£ 7,585,359	£ 9,217,359	£ 8,961,763	£ 9,953,734
Value of production ..	£ 2,329,969	£ 2,467,285	£ 3,089,595	£ 2,962,687	£ 3,106,190

(a) Includes Rubber Boots and Shoes and Other Rubber Goods for Tasmania.

39. Electric Light and Power Works.—(i) *Details for each State, 1943-44.* The increased demand for electrical energy has been responsible for considerable development in electric light and power works during recent years. Since 1938-39 the production of electric light and power has increased from 4,088 to 6,656 million K.W.H., or by 42 per cent. Particulars for the year 1943-44 are as follows :—

ELECTRIC LIGHT AND POWER WORKS, 1943-44.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	102	72	48	45	102	4	373
Number of persons engaged ..	2,521	1,438	625	638	563	104	5,889
Value of land and buildings ..	£ 4,125,958	£ 2,144,474	£ 596,591	£ 665,869	£ 454,827	£ 505,449	£ 8,493,168
Value of plant and machinery ..	£ 1,277,284	£ 839,486	£ 1,927,327	£ 2,017,428	£ 2,158,803	£ 2,874,825	£ 29,250,535
Wages paid ..	£ 985,142	£ 594,145	£ 226,600	£ 205,239	£ 189,403	£ 34,974	£ 2,235,512
Value of fuel used ..	£ 2,412,047	£ 1,231,380	£ 653,128	£ 591,915	£ 729,413	..	£ 5,617,883
Value of materials used ..	£ 411,219	£ 105,196	£ 76,114	£ 74,399	£ 35,917	£ 13,865	£ 716,710
Total value of output ..	£ 8,208,762	£ 3,779,703	£ 1,565,551	£ 1,493,733	£ 1,321,970	£ 141,380	£ 16,513,165
Value of production ..	£ 5,385,496	£ 2,443,187	£ 836,309	£ 827,419	£ 558,646	£ 127,515	£ 10,178,572

Particulars of the types of engines and generators installed in Electric Light and Power Works and their rated horse-power are given on p. 913.

(ii) *Production, 1938-39 and 1940-41 to 1943-44* The increase in the production of electric light and power in each of the States since 1938-39 is shown in the following table :—

ELECTRIC LIGHT AND POWER WORKS : PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	'000 K.W.H.	'000 K.W.H.	'000 K.W.H.	'000 K.W.H.	'000 K.W.H.	'000 K.W.H.	'000 K.W.H.
1938-39 ..	1,948,400	1,222,505	387,363	256,283	307,002	566,691	4,688,339
1940-41 ..	2,405,118	1,550,169	456,715	304,372	353,369	669,970	5,739,713
1941-42 ..	2,656,244	1,684,562	481,189	385,041	347,009	726,475	6,280,520
1942-43 ..	2,844,181	1,812,766	515,254	417,873	317,338	771,282	6,678,694
1943-44 ..	2,826,132	1,757,563	563,489	393,794	313,261	801,945	6,656,184

40. *Gas-works.*—(i) *Details for each State, 1943-44.* Gas-works are in operation in the majority of important towns in Australia. New South Wales returned eight coke factories and Queensland two, working as separate industries, but under the present classification these are included in Class I.—Treatment of Non-metalliferous Mine and Quarry Products. The following table gives particulars of gas-works in each State for the year 1943-44 :—

GAS-WORKS, 1943-44.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	42	39	16	4	4	2	107
Number of persons engaged ..	1,185	1,109	308	373	154	52	3,181
Value of land and buildings £	803,416	438,037	187,730	25,340	(a)	(a)	1,564,025
Value of plant and machinery £	3,191,816	3,223,975	579,331	1,108,300	(a)	(a)	8,531,815
Wages paid ..	£ 420,682	379,566	105,232	125,168	(a)	(a)	1,008,904
Value of fuel used ..	£ 325,232	36,338	7,529	2,495	(a)	(a)	401,067
Value of materials used ..	£ 1,449,844	1,470,004	283,383	300,740	(a)	(a)	3,725,871
Total value of output ..	£ 3,577,340	2,299,945	686,832	490,280	(a)	(a)	7,454,649
Value of production ..	£ 1,802,264	793,603	395,920	187,045	(a)	(a)	3,327,711

(a) Not available for publication.

(b) Includes particulars for States marked (a).

(ii) *Coal Used and Production, 1943-44.* The following table gives details for 1943-44 :—

GAS-WORKS : COAL USED AND PRODUCTION, 1943-44.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
COAL USED.							
Coal tons	754,344	590,894	144,681	117,818	(a)	(a)	1,565,212
PRODUCTS.							
Gas produced ..,000 cubic ft.	14,558,126	10,119,016	2,215,894	1,774,236	(a)	(a)	29,957,772
Gas sold ..,000 cubic ft.	12,890,475	9,281,751	1,993,233	1,548,071	(a)	(a)	26,842,130
Coke produced .. tons	481,511	328,821	81,170	117,172	(a)	(a)	992,898
Coke for sale .. tons	290,048	205,456	42,311	46,951	(a)	(a)	595,085
VALUE.							
Gas sold .. £	2,520,784	2,628,778	801,256	676,338	(a)	(a)	7,051,220
Coke for sale .. £	367,314	415,932	52,744	127,044	(a)	(a)	995,085

(a) Not available for publication.

(b) Includes particulars for States marked (a).

Since 1938-39, when the output of gas was 21 thousand million cubic feet, production has increased each year and reached almost 30 thousand million cubic feet in 1943-44.

CHAPTER XXVI. MINERAL INDUSTRY.

§ 1. The Mineral Wealth of Australia.

1. *Place of Mining in Australian Development.*—The value of production from the mineral industry is now considerably less than that returned by the agricultural, the pastoral or the dairying industry; nevertheless it was the discovery of gold in payable quantities that first attracted population to Australia in large numbers and thus accelerated its national development.

2. *Extent of Mineral Wealth.*—The extent of the total mineral wealth of Australia cannot yet be regarded as completely ascertained, as large areas of country still await systematic prospecting. More detailed reference to this matter will be found in preceding issues of the Official Year Book. (See No. 22, p. 755.)

During the years 1934 to 1940 a survey of certain areas in Australia north of the 22nd parallel of south latitude was undertaken by the Governments of the Commonwealth, Queensland and Western Australia. This survey is referred to in § 15 below.

3. *Quantity and Value of Production in 1943.*—The quantities (where available) and the values of certain of the principal minerals produced in each State, and in Australia as a whole, during 1943 are given in the tables immediately following. It must be clearly understood that the figures quoted in these tables refer to the quantities and values of the various minerals in the form in which they were reported to the State Mines Departments, and represent amounts which the Mines Departments consider may fairly be taken as accruing to the mineral industry as such. They are not to be regarded as representative of Australia's potentiality as a producer of *metals*, this matter being dealt with separately in § 16 below. New South Wales is, of course, in normal times, a large producer of iron and steel from ironstone mined in South Australia. As the table shows, the latter State receives credit for this ironstone in its mineral returns. The iron and steel produced therefrom cannot be assigned to the mineral industry of New South Wales, but the value of the transformation from ore to metal is credited to the manufacturing industry of that State. Similarly lead, silver lead, cadmium, cobalt and zinc are credited in the form reported to the State of origin—chiefly New South Wales—although the actual metal extraction is carried out principally in South Australia and Tasmania.

The quantities of cadmium and cobalt recovered in Tasmania from zinc ores mined in New South Wales during 1943 are given in § 8, par. 3 (page 992.)

MINERAL PRODUCTION: QUANTITIES, 1943.

Mineral.	Unit.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Australia.
Antimony and Ore	ton	418	45	16	..	1,476	..	..	1,955
Arsenic and Ore ..	..	..	..	..	..	2,283	..	..	2,283
Asbestos ..	cwt.	8,300	..	..	220	4,860	365	..	13,745
Barytes ..	ton	1,525	..	..	3,012	..	..	..	4,537
Bismuth and Ore ..	cwt.	24	..	40	..	560	6	..	630
Cadmium ..	..	(a)	..	..	..	..	807	..	(b) 807
Chalk, Talc, Soap-stone, etc. ..	ton.	1,331	..	..	3,283	73	..	..	4,687
Coal ..	..	..	..	..	..	..	..	..	..
Black ..	..	11,528,893	287,100	1,699,521	..	531,546	145,882	..	14,192,942
Brown ..	..	..	5,091,729	..	..	..	..	..	5,091,729
Copper (Ingot and Matte) ..	..	3,798	..	10,758	102	..	11,148	88	25,894
Copper Ore ..	..	2,747	..	124	..	40	..	..	4,075
Diatomaceous earth ..	..	3,828	1,164	..	514	2,314	..	..	6,656
Felspar ..	..	..	..	..	7,737	2,112	..	..	9,849
Fireclay ..	..	2,240	..	7,080	1,740	220	140	..	11,420
Graphite ..	cwt.	..	..	..	..	..	..	..	..
Gold ..	fine oz.	63,779	56,511	62,838	519	516,475	17,245	3,912	751,279
Gypsum ..	ton	35,818	8,930	..	39,523	935	..	..	85,206
Iron-stone and Ore ..	..	7,363	..	3,916	2,182,331	84	..	..	2,193,331
Kaolin ..	..	..	3,740	..	1,799	..	1,655	..	7,194
Lead ..	..	(a)	..	8,579	1	1,250	8,633	..	(b) 18,463
Limestone Flux ..	..	278,256	..	3,977	122,909	..	133,625	..	538,467
Magnesite ..	..	64,069	..	..	791	..	..	..	64,860

(a) See letterpress preceding this table.

(b) Incomplete.

MINERAL PRODUCTION: QUANTITIES, 1943—continued.

Mineral.	Unit.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Australia.
Manganese Ore ..	ton	604	..	..	5,590	..	..	..	6,194
Mica ..	cwt.	..	..	..	1,220	124	..	..	1,344
Molybdenite ..	..	164	200	177	..	..	..	..	541
Ochre and Other Pigment Clays ..	ton	1,737	..	..	72	397	380	1,345	3,931
Osmiridium ..	oz.	..	..	..	..	..	90	..	90
Phosphate ..	ton	120	..	..	12,777	43	..	..	12,940
Salt ..	..	..	(e)	..	184,312	(c)	..	..	(b)184,312
Scheelite ..	cwt.	460	..	48	..	5	3,984	..	4,497
Shale (Oil) ..	ton	116,875	..	..	..	..	..	..	116,875
Silica ..	..	88,352	..	67	9,027	..	8,184	..	105,630
Silver ..	oz.	(a)281,285	17,423	775,072	352	118,803	1,116,576	..	62,309,511
Silver-lead Ore, Concentrates, etc.	ton	249,484	..	..	..	..	..	..	249,484
Tantalite ..	..	..	..	..	..	12	..	..	13
Tin and Tin Ore ..	..	1,074	60	785	(d) 128	11	949	26	2,905
Wolfram ..	cwt.	840	282	3,027	3	..	4,600	3,769	12,521
Zinc and Concen- trates ..	ton	283,964	..	5,077	..	..	21,078	..	310,119

(a) See letterpress preceding this table.

(b) Incomplete.

(c) Not available.

(d) lb.

The values of the minerals raised in each State in 1943 are given in the following table:—

MINERAL PRODUCTION: VALUES, 1943.

Mineral.	N.S.W. (a)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	N.T.	Australia.
	£	£	£	£	£	£	£	£
Antimony and Ore ..	17,161	2,096	519	..	52,913	..	..	72,689
Arsenic and Ore ..	..	..	..	..	47,943	..	..	47,943
Asbestos ..	18,189	..	..	245	12,975	365	..	31,774
Barytes ..	2,511	..	..	9,052	..	..	..	11,563
Bismuth and Ore ..	958	..	791	..	137	241	..	2,127
Cadmium ..	(b)	..	..	..	..	18,072	..	(c) 18,072
Chalk, Talc, Soap- stone, etc. ..	3,376	..	..	10,133	170	..	..	13,679
Coal—								
Black ..	9,290,095	429,358	1,824,591	..	489,721	117,361	..	12,151,126
Brown ..	..	528,666	..	..	..	..	..	528,666
Copper (Ingot and Matte) ..	379,800	..	1,111,049	10,100	33	691,199	2,393	2,194,574
Copper Ore ..	..	..	..	..	..	..	..	..
Diatomaceous earth ..	2,427	4,047	341	..	640	..	..	7,455
Felspar ..	9,632	..	..	1,221	6,924	..	..	17,777
Fireclay ..	..	..	..	4,836	1,387	..	..	6,223
Gems ..	124	..	2,350	..	..	..	..	2,474
Gold ..	666,491	590,541	656,657	5,423	5,710,663	180,209	40,880	7,850,864
Graphite ..	558	..	4,248	4,238	55	10	..	9,109
Gypsum ..	27,569	5,303	..	29,642	880	..	..	63,394
Iron-stone and Ore ..	5,822	..	3,725	2,510,256	128	14	..	2,519,945
Kaolin ..	..	6,482	..	2,699	..	2,438	..	11,619
Lead ..	(b)	..	129,109	13	1,100	215,817	..	(c)346,039
Limestone Flux ..	75,960	..	4,769	57,624	..	54,680	..	193,033
Magnesite ..	117,149	..	..	1,585	..	..	..	118,734
Manganese Ore ..	3,592	..	..	12,836	..	..	..	16,428
Mica ..	..	..	..	(g)131	715	..	17,919	18,765
Molybdenite ..	3,363	5,098	3,637	..	..	..	..	12,098
Ochre and Other Pigment Clays ..	2,902	..	..	108	3,866	1,681	4,800	13,357
Opal ..	2,288	..	..	13,881	..	..	..	16,169
Osmiridium ..	..	..	..	..	..	2,087	..	2,087
Phosphate ..	150	..	..	17,078	21	..	..	17,249
Salt ..	(d)	(d)	368,624	(d)	..	..	..	(c)368,624
Scheelite ..	9,185	..	889	..	2,664	68,908	..	81,646
Shale (Oil) ..	160,215	..	..	..	..	..	..	160,215
Silica ..	19,345	..	26	6,664	..	3,523	..	29,558
Silver ..	(b) 29,741	2,278	101,728	49	15,375	117,241	..	(c)266,412
Silver-lead Ore, Concentrates, etc.	3,722,931	..	..	..	..	..	..	3,722,931
Tantalite ..	..	..	..	..	11,833	..	1,043	12,876
Tin and Tin Ore ..	403,320	14,162	167,176	10	2,315	246,218	5,594	838,795
Wolfram ..	14,033	5,041	56,778	10	80	82,965	58,166	217,073
Zinc and Concen- trates ..	781,737	..	76,158	..	..	574,398	..	1,432,293
Unenumerated ..	(e)197,954	922	(f)69,984	4,258	21,217	1,106	..	295,441
Total ..	15,968,578	1,593,094	4,214,525	3,070,716	6,383,755	2,378,533	130,705	33,740,806

(a) For items excluded see letterpress below.

(b) See letterpress preceding this table.

(c) Incomplete.

(d) Not included with mineral production.

(e) Includes zircon-rutile-ilmenite

£115,331, dolomite, £36,805.

(f) Includes zircon-rutile-ilmenite £65,029.

(g) Damourite.

It should be pointed out in connexion with the figures given in the foregoing table that the totals exclude certain commodities, such as stone for building and industrial uses, sand, gravel, brick and pottery clays, lime, cement and slates, which might be included under the generic term "mineral". Particulars of the production of some of these items are given in par. 6, Quarries, below. Items excluded, such as cement, carbide and sulphuric acid, are included in manufacturing production, and, in any case, only the raw material could properly be included in mineral production. The items excluded from the total for New South Wales in 1943 consisted of—lime, £36,521; building stone, £18,617; Portland cement, £1,061,895; coke, £2,400,993; road material and gravel, £1,043,624; shell grit, £33,636; sulphur and sulphuric acid, £126,926; and brick and pottery clays, £90,573. Carbide and cement, £356,947, have been excluded from the Tasmanian figures.

4. **Value of Production, 1938 to 1943.**—The values of the minerals produced in each State during the six years 1938 to 1943 are given in the table hereunder :—

MINERAL PRODUCTION : VALUES.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Australia.
	£	£	£	£	£	£	£	£
1938 ..	10,731,391	1,884,015	3,966,119	2,932,473	10,844,469	1,889,804	214,724	32,462,995
1939 ..	12,123,751	2,248,169	4,556,962	3,320,181	12,288,532	2,056,741	244,478	36,838,814
1940 ..	12,791,408	2,596,117	5,105,629	3,218,237	13,230,552	2,749,817	311,024	40,002,784
1941 ..	15,073,833	2,371,568	5,300,600	3,187,093	12,399,351	2,650,271	274,172	41,256,888
1942 ..	16,258,694	1,980,972	5,023,495	3,012,973	9,487,562	2,494,119	204,366	38,462,181
1943 ..	15,968,578	1,593,994	4,214,525	3,070,716	6,383,755	2,378,533	130,795	33,740,896

The value of mineral production in Australia during 1941 was the highest ever recorded. Decreases were recorded in every State except New South Wales in 1942 and in every State except South Australia in 1943.

Since 1941 the greatest decrease has occurred in Western Australia, £6,016,000; followed by Queensland, £1,085,000; Victoria, £778,000; Tasmania, £272,000; Northern Territory, £143,000 and South Australia, £116,000. New South Wales increased by £895,000. There was a downward movement in quantity and value for many minerals. The value of gold decreased by over £8 million, but was offset by an increase of more than £1.5 million in the value of black coal. The decrease of all mineral production was £7,515,000.

5. **Total Production to end of 1943.**—In the next table will be found the estimated value of the total mineral production in each State up to the end of 1943. The items excluded from the preceding table are also omitted here, and consequently the total for New South Wales is £63,400,000 less than that published by the State Department of Mines. The principal items excluded from the table below are coke, £30,972,000; cement, £30,158,000; lime, £2,310,000; and considerable values for marble, slate, granite, chert, gravels, etc., which the State Department now includes in the returns for quarries.

MINERAL PRODUCTION : VALUES TO END OF 1943.

Mineral.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Australia.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
Gold ..	71,451	316,295	97,857	2,139	266,119	10,736	3,441	768,038
Silver and lead ..	161,853	277	15,330	422	2,531	12,043	67	192,523
Copper ..	16,904	217	30,919	33,341	1,816	27,763	249	111,209
Iron ..	7,763	16	523	34,394	37	97	..	42,830
Tin ..	18,426	1,217	13,160	..	1,672	20,322	690	55,487
Wolfram ..	393	18	1,314	..	2	734	675	3,136
Zinc ..	28,763	..	3,426	16	6	5,066	..	37,277
Coal ..	268,779	21,462	33,124	2	11,210	2,966	..	337,543
Other ..	11,209	1,090	3,215	8,699	1,505	3,356	252	29,326
Total ..	585,541	340,592	198,868	79,013	284,898	83,083	5,374	1,577,369

The "other" minerals in New South Wales include alunite, £222,000; antimony, £419,000; arsenic, £212,000; bismuth, £246,000; chrome, £141,000; diamonds, £150,000; magnesite, £691,000; molybdenite, £231,000; opal, £1,633,000; scheelite, £229,000; and shale oil, £3,151,000. In the Victorian returns antimony ore was responsible for £635,000. The value for coal in this State includes £5,909,000 for brown coal. Included in "other" in the Queensland production were opal, £188,000; gems, £649,000; bismuth, £146,000; cobalt, £158,000; molybdenite, £626,000; limestone flux, £903,000; and arsenic, £124,000. The chief items in South Australian "other" minerals were salt, £5,462,000; limestone flux, £454,000; gypsum, £1,634,000; phosphate, £180,000; and opal, £214,000. In Western Australia arsenic, £588,610; gypsum, £136,000; and asbestos, £135,000 were the principal items included with "other" minerals. In the Tasmanian returns osmiridium was responsible for £652,000, scheelite for £384,400, and limestone flux for £1,280,000.

6. Quarries.—Statistics giving details of the output of quarries were first published in Official Year Book No. 33, 1940. The details were collected following a resolution of the Conference of Australian Statisticians held in 1935.

The Conference defined a quarry, for the purpose of these statistics, as one in which four hands or more are employed, or in which power other than hand-power is used. The details given in the following table represent the output of quarries conforming to this definition, although in a few relatively unimportant cases details of other establishments have been included.

The authorities responsible for the collection of these statistics are the Government Statistician in New South Wales, Victoria, Queensland and Western Australia, and the Department of Mines in South Australia and Tasmania.

It should be noted that the inclusion of returns from certain small establishments tends to inflate the figures in the following tables, but there is possibly a compensating factor in that some quantities used by shires and municipalities in the repair of roads have not been returned to the collecting authority. Complete details for all States for later years are not available.

OUTPUT OF QUARRIES, 1939.

Description.	N.S.W.	Victoria. (a)	Q'land. (a) (b)	S. Aust.	W. Aust. (a)	Tas.	Australia.
QUANTITY.							
Building Stone ..	Tons. 484,356	Tons. 62,280	Tons. 1,277	Tons. 33,314	Tons. 26,289	Tons. 246	Tons. 607,762
Macadam, Ballast, etc. ..	5,377,754	1,395,997	622,373	1,805,181	353,217	..	9,554,522
Limestone (c) ..	863,441	353,726 (d)	23,792	7,040	86,540 (e)	330,772	1,665,311
Clays ..	1,619,288	..	..	216,940	..	..	f 1,836,228
Other ..	116,215	..	..	..	(e)	..	(f) 116,215
Total ..	8,461,054	1,812,003	647,442	2,062,475	(f) 466,046	331,018	f 13,780,038
VALUE.							
Building Stone ..	£ 177,111	£ 42,182	£ 463	£ 16,577	£ 10,073	£ 885	£ 247,291
Macadam, Ballast, etc. ..	862,539	424,217	166,618	424,420	141,764	..	2,019,558
Limestone (c) ..	174,404	86,489 (d)	19,870	1,491	12,830	97,178	392,262
Clays ..	207,294	..	..	27,118	36,396	..	(f) 270,808
Other ..	25,379	..	..	..	13,012	..	38,591
Total ..	1,446,927	552,888	186,951	469,606	214,075	98,063	(f) 2,968,510

(a) Year ended June, 1940. (b) Estimated. (c) Limestone used as a flux and for the manufacture of lime and cement. It omits quantities used as building stone and as macadam, ballast, etc., which are already included under those headings. (d) Not collected. (e) Not available. (f) Incomplete.

In the following table corresponding details are given for each State for the years 1935 to 1939:—

OUTPUT OF QUARRIES.

State.	1935.		1936.		1937.		1938.		1939.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	'000 tons.	£	'000 tons.	£	'000 tons.	£	'000 tons.	£	'000 tons.	£
New South Wales	6,142	1,052,989	7,260	1,261,301	8,616	1,662,135	9,402	1,634,887	8,461	1,446,927
Victoria (a) (b) ..	1,609	476,293	1,673	514,984	1,573	474,303	1,621	493,576	1,812	532,888
Queensland (a)(c)	902	168,030	934	255,040	776	242,693	729	213,318	647	186,951
South Aust.	1,005	170,273	1,154	196,957	1,244	226,696	1,765	339,064	2,063	469,606
Western Aust.(a)	164	68,201	272	94,975	367	137,672	500	185,237	(d)466	214,075
Tasmania	254	68,357	262	71,243	309	86,986	288	89,655	331	98,063
Total ..	10,076	2,004,143	11,555	2,394,500	12,885	2,830,485	14,305	2,975,737	13,780	2,968,510

(a) Year ended June following.

(b) Omit: clays.

(c) Estimated.

(d) Incomplete.

7. Geophysical Methods for Detection of Ore Deposits.—Reference to the application of geophysical survey methods in Australia will be found in Official Year Book No. 24, p. 570.

§ 2. Gold.*

1. Discovery in Various States.—The discovery of gold in payable quantities was an epoch-making event in Australian history, for, as one writer aptly phrases it, this event "precipitated Australia into nationhood". A more or less detailed account of the finding of gold in the various States appears under this Section in Official Year Books Nos. 1 to 4.

2. Production at Various Periods.—In the following table will be found the values of the gold raised in the several States and in Australia as a whole during each of the nine decennial periods from 1851 to 1940, and in single years from 1935 to 1944. Owing to the defective information in the earlier years the figures fall considerably short of the actual totals, for during the first stages of mining development large quantities of gold were taken out of Australia by successful miners who preferred to keep the amount of their wealth secret.

GOLD: VALUE OF PRODUCTION.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Australia.
	£	£	£	£	£	£	£	£
1851-60..	11,530,583	93,337,052	14,565	..	..	788,564	..	105,670,764
1861-70..	13,676,103	65,106,264	2,076,494	..	..	12,174	..	80,871,035
1871-80..	8,576,654	40,625,188	10,733,048	579,068	..	700,048	79,022	61,293,028
1881-90..	4,306,541	28,413,792	13,843,081	246,668	178,473	1,514,921	713,345	49,216,821
1891-1900	10,332,120	29,901,152	23,989,359	219,931	22,308,524	2,338,336	906,988	89,999,410
1901-10..	9,569,492	30,136,686	23,412,395	310,080	75,540,415	2,566,170	473,871	142,009,109
1911-20..	4,988,377	13,354,217	9,876,677	238,808	46,868,351	873,302	100,652	76,240,384
1921-30..	940,946	2,721,309	1,976,715	47,564	20,462,957	193,833	(b) 11,545	26,354,869
1931-40..	5,115,397	9,444,570	9,118,903	459,330	74,391,204	1,164,492	786,790	100,480,686
1935 ..	439,140	768,401	904,755	64,109	5,677,328	73,143	81,457	8,008,333
1936 ..	525,792	1,018,670	1,048,748	66,593	7,329,309	152,291	65,683	10,204,086
1937 ..	595,855	1,266,507	1,104,760	60,372	8,688,321	176,130	100,462	11,993,007
1938 ..	780,956	1,273,351	1,334,788	46,922	10,286,349	195,079	109,168	14,026,615
1939 ..	848,958	1,533,899	1,428,598	38,895	11,796,065	192,596	163,414	16,002,472
1940 ..	1,068,692	1,924,396	1,351,654	34,892	12,697,219	204,248	238,849	17,519,950
1941 ..	941,244	1,600,016	1,104,621	17,908	11,852,452	212,710	201,599	15,990,550
1942 ..	807,436	1,060,970	994,214	13,930	8,865,806	191,835	126,035	12,060,166
1943 ..	666,191	590,541	656,657	5,423	5,710,663	180,209	40,880	7,850,864
1944 ..	657,163	568,305	533,176	5,662	4,899,384	174,888	57,803	6,901,381
Total								
1851-1944	72,108,547	316,863,002	98,394,905	2,144,372	271,018,229	10,011,482	3,498,530	774,939,067

(a) Period July, 1911 to June, 1920.

(b) Period July, 1920 to December, 1930.

* The values quoted in this section are in Australian currency throughout.

Owing to the exhaustion of the more easily worked deposits and the unprofitableness of gold-mining during the era of high prices following the 1914-19 War, the production of gold in Australia declined from 3,838,029 fine oz. in 1903 to 427,159 fine oz. in 1929, the lowest output since the discovery of the precious metal.

Increased activity in prospecting due to prevailing economic conditions resulted in some improvement in 1930, but the marked development since that year received its impetus from the heavy depreciation of Australian currency in terms of gold. Oversea and local capital were attracted to the industry, and the employment of advanced geological methods and technical improvements brought many difficult or abandoned propositions into profit. The output of gold rose annually from 466,593 fine oz. in 1930 to 1,645,697 fine oz. in 1939. Following the outbreak of war in 1939, production fell slightly in 1940, and rapidly thereafter, due to the diversion of man-power, until in 1944 it was only 656,867 fine oz.

Due to the increase in the price of gold, the value in 1940 reached the maximum figure of £17,519,950, exceeding the previous record of £16,294,684 reached in 1903.

Values per fine oz. in Australian currency assigned to the production of gold during recent years in the table above are, £8 15s. 1½d. in 1935, £8 13s. 2d. in 1936, £8 13s. 8d. in 1937, £8 16s. 2½d. in 1938, £9 14s. 5½d. in 1939, £10 13s. 1½d. in 1940, £10 13s. 8d. in 1941, £10 9s. 0½d. in 1942, £10 9s. 0d. in 1943 and £10 11s. 3½d. in 1944. Monthly fluctuations in the price of gold in London and in Australia during 1944-45 are shown in Chapter XVII. "Private Finance".

The amount of gold raised in Australia in any one year attained its maximum in 1903, in which year Western Australia also reached its highest point. For the other States the years in which the greatest yields were obtained were as follows:—New South Wales, 1852; Victoria, 1856; Queensland, 1900; South Australia, 1894; and Tasmania, 1899.

The following table shows the quantities of gold raised in the various States and in Australia during each of the six years ended 1944. A separate line is added showing the total production in thousands of fine ounces from 1851 to 1944:—

GOLD : QUANTITY PRODUCED.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Terr.	Australia.
	Fine oz.	Fine oz.	Fine oz.	Fine oz.	Fine oz.	Fine oz.	Fine oz.	Fine oz.
1939 ..	87,189	156,522	147,248	3,930	1,214,238	19,984	16,586	1,645,697
1940 ..	100,255	180,567	126,831	3,270	1,191,482	19,171	22,423	1,643,999
1941 ..	88,091	149,769	109,064	1,679	1,109,318	19,908	18,860	1,496,608
1942 ..	77,249	101,497	95,117	1,333	848,180	18,353	12,058	1,153,787
1943 ..	63,779	56,511	62,838	519	546,475	17,245	3,912	751,279
1944 ..	62,610	54,086	51,223	539	466,265	16,653	5,491	656,867
Total (a)— 1851-1944	15,862	72,762	21,473	443	49,749	2,312	660	163,261

(a) '000 omitted.

Particulars of the quantity and value of gold produced during 1945 are given in the following table.

GOLD PRODUCTION, 1945.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Australia.
Quantity .. fine oz.	43,129	61,790	03,223	277	468,551	13,050	7,193	657,213
Value .. £ A'000	461	661	677	3	5,012	140	77	7,031

3. Changes in Relative Positions of States as Gold Producers.—The figures in the table showing the value of gold raised explain the enormous increase in the population of Victoria during the period 1851 to 1861, when an average of over 40,000 persons reached the State each year. With the exception of 1889, when its output was exceeded by

that of Queensland, Victoria maintained its position as the chief gold producer for a period of forty-seven years, until its production was surpassed by that of Western Australia in 1898. From that year onward the proportion contributed by Western Australia has increased and in 1944 represented 71 per cent. of the entire yield of Australia, the proportion contributed by this State over the period from 1851 to 1944 being 30 per cent. and by Victoria for the same period 45 per cent.

4. *Place of Australia in the World's Gold Production.*—The table given below shows the world's gold production, and the share of Australia therein in decennial periods since 1851 and during each of the last ten years for which returns are available. The figures given in the table have been compiled from the best authoritative sources of information.

GOLD : WORLD'S PRODUCTION.

Period.	World's Production of Gold.	Gold Produced in Australia.	Percentage of Australia on Total.
	Fine oz.	Fine oz.	%
1851-60	61,352,295	24,877,013	40.55
1861-70	53,675,679	19,038,661	35.47
1871-80	50,473,314	14,429,599	28.59
1881-90	51,998,060	11,586,626	22.28
1891-1900	102,605,748	21,187,661	20.63
1901-10	182,891,525	33,434,069	18.28
1911-20	206,114,773	17,426,466	8.45
1921-30	186,091,278	5,841,902	3.14
1931-40	314,438,828	11,383,009	3.62
1931	22,786,773	595,123	2.61
1932	24,204,275	713,882	2.95
1933	25,568,920	830,332	3.25
1934	27,032,084	887,490	3.28
1935	29,434,127	914,736	3.11
1936	33,167,494	1,178,581	3.55
1937	34,543,360	1,381,135	4.00
1938	37,110,594	1,592,934	4.29
1939	39,524,100	1,645,697	4.16
1940	(a) 41,067,101	1,643,999	4.00

(a) Subject to revision.

It is estimated that the world's production in 1941 approximated 40,300,000 fine oz. of which Australia's share amounted to 1,497,000 fine oz. or 3.7 per cent.

The quantities of gold produced in the principal producing countries in each of the five years 1938 to 1942 are given in the table hereunder. Particulars of the quantities and values of gold produced in all countries for the ten years 1930-39 will be found in *Production Bulletin* No. 34, Part II., issued by this Bureau.

GOLD PRODUCTION IN PRINCIPAL COUNTRIES.

Country.	1938.	1939.	1940.	1941.	1942.
	Fine oz.	Fine oz.	Fine oz.	Fine oz.	Fine oz.
Union of South Africa	12,161,392	12,821,507	14,046,502	14,386,361	14,120,617
Canada	4,725,117	5,094,379	5,311,145	5,345,179	4,841,306
U.S.S.R. (Russia)	5,000,000	5,000,000	4,000,000	(a)	(a)
U.S.A.	4,245,368	4,620,567	4,862,979	4,832,087	3,583,080
Australia	1,592,034	1,645,697	1,643,999	1,496,698	1,153,787
Philippine Islands	993,265	990,000	1,140,126	1,144,332	158,726
Korea	1,050,000	975,000	1,025,000	(a)	(a)
Mexico	923,798	944,000	1,000,274	923,295	799,107
Japan, including					
Formosa	852,000	910,000	900,000	(a)	(a)
Rhodesia	815,191	800,276	832,037	793,842	763,030

(a) Not available.

The next table shows the average yearly production in the principal gold-producing countries for the decennium 1933 to 1942:—

**GOLD : AVERAGE ANNUAL PRODUCTION IN PRINCIPAL COUNTRIES,
1933 TO 1942.**

Country.	Quantity.	Country.	Quantity.
	Fine oz.		Fine oz.
Union of South Africa ..	12,287,473	Mexico ..	817,285
U.S.S.R. (Russia) ..	(a) 4,500,750	Rhodesia ..	768,067
Canada ..	4,236,764	Japan, including Formosa (a)	752,868
U.S.A. ..	3,820,281	Korea ..	(a) 737,500
Australia ..	1,272,354	Philippine Islands ..	674,146

(a) Average eight years, 1933 to 1940.

5. **Employment in Gold-mining.**—The number of persons engaged in gold-mining in each State at various intervals since 1901 is shown in the following table. The figures include prospectors, etc, so far as they are ascertainable, and include those who may not have worked during the whole of the year.

GOLD-MINING : PERSONS EMPLOYED.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Total.
	No.	No.	No.	No.	No.	No.	No.	No.
1901 ..	12,064	27,387	9,438	(a) 1,000	19,771	1,112	(a) 200	70,972
1903 (b) ..	11,247	25,208	9,229	(a) 1,000	20,716	973	(a) 200	68,573
1913 ..	3,570	11,931	3,123	800	13,445	481	175	33,525
1923 ..	1,141	2,982	603	32	5,555	119	30	10,462
1933 ..	6,913	6,126	4,161	231	9,900	229	95	27,655
1938 ..	3,764	6,315	3,378	158	15,374	141	267	29,397
1939 ..	3,441	6,169	3,299	178	15,216	116	421	28,840
1940 ..	2,952	4,783	1,995	157	14,593	123	347	24,950
1941 ..	2,330	2,801	1,630	86	13,106	80	236	20,269
1942 ..	1,571	1,661	1,075	34	8,123	33	50	12,547
1943 ..	771	719	1,297	29	5,079	19	40	7,954

(a) Estimated.

(b) Year of maximum production for Australia.

Owing to causes referred to earlier in this section, the number employed in gold-mining had dwindled to the comparatively small figure of 6,108 in 1929. Stimulated by the enhanced price of gold, employment in the industry rose more than five-fold to 33,113 in 1935, but since then the numbers employed have declined each year to 7,954 in 1943.

6. **Tax on Gold.**—(i) *General.* The Commonwealth Government imposed a tax on gold produced in Australia or in any Territory under its jurisdiction and delivered to the Commonwealth Bank on or after 15th September, 1939. The rate of tax was fixed at 50 per cent. of the price payable by the Bank in excess of £A9 per fine oz. Gold imported from places other than Australian Territories is not subject to the tax, nor is gold coin or wrought gold unless and until the Treasurer otherwise directs by notice in the *Commonwealth Gazette*.

The tax on gold yielded £1,214,621 during 1939-40; £1,452,260 during 1940-41; £1,030,425 in 1941-42; £524,694 in 1942-43; £317,720 in 1943-44; and £342,457 in 1944-45.

(ii) *Development of Gold Mining Industry.* Under the Gold Mining Encouragement Act 1940 a rebate of tax is allowed to bona fide prospectors in respect of the first 25 ounces delivered by them each year, and a refund of the whole or part of the tax is made to certain producers on low margins. In such cases gold is not taxed if their profits do not exceed 30s. per fine oz. and they only pay tax, but not exceeding the ordinary tax payable, to the extent to which their profits exceed 30s. per fine oz.

Assistance amounting to £150,000 was given to the gold-mining Industry, through the medium of the States, during 1940-41.

7. **Bounty on Production.**—A reference to the bounty provided by the Commonwealth on gold production in Australia appears in Official Year Book No. 32, p. 579.

§ 3. Silver, Lead and Zinc.

1. **Occurrence in Each State.**—Particulars regarding the occurrence of silver and associated metals in each State were given in Official Year Books, Nos. 1 to 5.

2. **Production.**—(i) *General.* The values of the production of silver, silver-lead ore and lead from the various States during each of the six years ended 1943 are given in the following table:—

SILVER AND LEAD : VALUE OF PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Australia.
	£	£	£	£	£	£	£	£
1938 ..	3,520,465	647	926,614	70	29,477	267,773	..	4,745,046
1939 ..	3,546,440	726	1,010,856	61	32,890	291,980	..	4,882,953
1940 ..	4,454,085	969	1,342,550	391	35,107	500,218	4	6,333,324
1941 ..	4,456,973	2,410	1,324,349	837	37,648	433,643	..	6,255,860
1942 ..	4,168,421	2,227	1,034,550	477	23,916	358,966	..	5,588,557
1943 ..	3,752,672	2,278	230,837	62	16,475	333,058	..	4,335,382

(ii) *New South Wales. (a) General.* The figures for New South Wales for 1943 include silver to the value of £29,741 and silver-lead ore and concentrates valued at £3,722,931. Since the Sulphide Corporation Ltd. ceased smelting operations in 1922 the silver (metal) has been obtained chiefly in the refining of gold and copper ores, and there has been no production of lead (pig). It may be noted here that the bulk of the carbonate and siliceous ore from the Broken Hill field is sent for treatment to Port Pirie in South Australia, while the remainder of the ore is concentrated on the field and then dispatched to Port Pirie for refining. The output of silver-lead ores and concentrates for 1943 showed a decrease of 39,714 tons over that of the previous year, and the value declined by more than £415,000.

It must be understood that the totals for New South Wales in the table above represent the net value of the product (excluding zinc) of the silver-lead mines of the State. In explanation of the values thus given, it may be noted that, as previously mentioned, the metallic contents of the larger portion of the output from the silver-lead mines in the State are extracted outside New South Wales, and the Mines Department considers, therefore, that the State should not take full credit for the finished product. The real importance of the State as a producer of silver, lead and zinc is thus to some extent understated.

(b) *Broken Hill.* Broken Hill, in New South Wales, is the chief centre of silver production in Australia. A description of the silver-bearing area in this district is given in earlier issues of the Official Year Book. (See No. 4, p. 500.)

Although the returns are not complete in all cases, the details given in the following table relating to the companies controlling the principal mines at Broken Hill will give some idea of the richness of the field. Later details are not yet available :—

SILVER : BROKEN HILL RETURNS TO END OF 1939.

Mine.	Value of Output to end of 1939.	Dividends and Bonuses Paid to end of 1939.
	£	£A.
Broken Hill Proprietary Co. Ltd.	54,659,804	17,412,937
Broken Hill Proprietary Block 14 Co. Ltd.	4,750,508	670,160
British-Australian Broken Hill Co. Ltd.	5,858,998	821,280
Broken Hill Proprietary Block 10 Co. Ltd.	4,946,989	1,432,500
Sulphide Corporation Ltd. (Central and Junction Mines)	30,495,262	4,760,283
Broken Hill South Ltd.	29,192,159	7,855,000
North Broken Hill Ltd.	26,429,365	8,230,190
Broken Hill Junction Lead Mining Co.	1,185,058	87,500
Junction North Broken Hill Mine	3,511,940	171,431
The Zinc Corporation Ltd.	16,209,301	5,026,962
Barrier South Ltd.	151,517	50,000
Total	176,790,901	46,518,243

(c) *Other Areas.* Silver is found in various other localities in New South Wales. During 1939 production commenced at the Captain's Flat silver-lead-zinc mine, 500 men being employed at the close of the year. The contents of the concentrates produced from this field during 1939 amounted to 144,000 ounces of silver, 11,850 tons of lead and 7,919 tons of zinc compared with 358,000 ounces of silver, 19,657 tons of lead and 11,041 tons of zinc produced in 1944.

(iii) *Victoria.* The silver produced in 1943 amounted to 17,423 oz., valued at £2,278, and was obtained in the refining of gold at the Melbourne Mint.

(iv) *Queensland.* The production of silver in 1943 decreased by 2,286,000 oz. to about 775,000 oz., and lead production by 24,933 tons to 8,579 tons, practically all of which was won from the mine and works at Mount Isa in the Cloncurry mineral field.

(v) *South Australia.* Silver ore has been discovered at Miltalie and Poonana, in the Franklin Harbour district, also at Mount Malvern and Olivaster, near Rapid Bay, and in the vicinity of Blinman and Farina, at Baratta, and elsewhere. There was no production between 1932 and 1935 but subsequently there has been a small output of silver. In 1943 production amounted to 352 oz. valued at £49, and in 1944 to 2,365 oz. valued at £309.

(vi) *Western Australia.* The quantity of silver obtained as a by-product and exported in 1943 was 118,803 fine oz., valued at £15,375.

(vii) *Tasmania.* The silver produced in 1943 amounted to 1,116,576 fine oz., valued at £117,241, and the lead to 8,633 tons, valued at £215,817, being produced in the Western Division of the State. Compared with previous years this represents a considerable decrease as regards both quantity and value. About 1,072,000 oz. of the total silver output were contained in silver-lead, while 44,300 oz. were contained in the blister copper produced by the Mount Lyell Co.

(viii) *Northern Territory.* A rich deposit of silver-lead and copper ore was located in 1930 at the Jervois Range about 200 miles east of Alice Springs. Development is hindered, however, by transport difficulties and lack of permanent water. Rich sulphides have been found at Barrow Creek. Production during the past ten years has been very intermittent and not very great in the years when any output was recorded.

3. *Production, Sales and Stocks of Refined Silver 1939 to 1944.*—The following table sets out as fully as possible the total production and distribution of refined silver in Australia. It is based on the data published by the Australian Mines and Metals Association and shows the stocks of refined silver in Australia, production and sales (locally and overseas) during the six years 1939 to 1944 :—

REFINED SILVER : PRODUCTION SALES AND STOCKS, AUSTRALIA.

Particulars.	1939.	1940.	1941.	1942.	1943.	1944.
	'000 fine oz.	'000 fine oz.	'000 fine oz.	'000 fine oz.	'000 fine oz.	'000 fine oz.
Stock from previous year ..	122	362	374	419	402	437
Production for year ..	9,552	8,971	9,758	9,508	8,263	7,176
Total Supply ..	9,674	9,333	10,132	9,927	8,665	7,613
Sold to Australian consumers	1,794	4,210	3,353	9,495	8,228	7,199
Exported or sold for export ..	7,518	4,749	6,360	30	..	..
Stock on hand at end of year	362	374	419	402	437	414
Total Disposals and Stocks	9,674	9,333	10,132	9,927	8,665	7,613
Silver Contents of Ores and Concentrates Produced ..	15,320	15,872	15,413	14,242	10,330	9,366

4. *World's Production.*—The world's production of silver during the last five years for which particulars are available is estimated to have been as follows :—

SILVER : WORLD'S PRODUCTION.

1937.	1938.	1939.	1940.	1941.
'000 fine oz.	'000 fine oz.	'000 fine oz.	'000 fine oz.	'000 fine oz.
274,574	267,765	265,927	272,510	262,854

The world's production of silver in millions of fine oz. during 1918, 1928 and 1938 amounted respectively to 203, 258 and 268, of which Australia contributed 10.4 million, 9.6 million and 13.9 million fine oz., or 5.1 per cent., 3.7 per cent. and 5.2 per cent. respectively. The production for Australia includes an estimate of the silver contents of the ores, bullion and concentrates exported

The estimated yields of the principal silver-producing countries in 1942 (or the latest year available) were as follows:—

SILVER PRODUCTION IN PRINCIPAL COUNTRIES, 1942 (or the latest year available).

Country.	Production.	Country.	Production.
	Fine oz. ('000 omitted.)		Fine oz. ('000 omitted.)
Mexico	84,864	British India (including	
United States of America ..	55,860	Burma)	(a) 6,175
Canada	20,695	Belgian Congo	(a) 3,537
Peru	16,035	Yugoslavia	(b) 2,570
Australia	14,242	Union of South Africa ..	(c) 1,461
Japan	(a) 11,000	Argentina	1,134
U.S.S.R. (Russia)	(a) 7,000	Newfoundland	909
Germany	(b) 7,000	Chile	905
Bolivia	8,139		

(a) Year 1940.

(b) Year 1939.

(c) Year 1941.

5. **Production of Lead in Australia.**—For reasons already mentioned, difficulties arise when an attempt is made to show the production of lead by States. This is due to the fact that production is largely recorded in terms other than metal. The Chief sources of production are New South Wales, Queensland, and Tasmania.

In the following table details of production, sales, and stocks are given for the years indicated and have been compiled from data supplied by the Australian Mines and Metals Association.

REFINED LEAD : PRODUCTION, SALES AND STOCKS, AUSTRALIA.

Particulars.	1939.	1940.	1941.	1942.	1943.	1944.
	Ton.	Ton.	Ton.	Ton.	Ton.	Ton.
Stocks from previous year ..	10,290	12,826	31,176	79,487	30,040	73,720
Production for year ..	199,437	189,150	213,476	206,929	180,629	154,547
Total Supply	209,727	201,976	244,652	286,416	210,669	228,267
Sold to Australian consumers	32,217	28,797	43,872	48,122	40,583	29,853
Exported or sold for export ..	164,684	142,003	121,293	208,254	96,366	179,455
Stock on hand at end of year	12,826	31,176	79,487	30,040	73,720	18,959
Total Disposals and Stocks	209,727	201,976	244,652	286,416	210,669	228,267
Lead Contents of Ores and Concentrates Produced ..	280,003	287,729	280,436	263,183	206,376	189,485

6. **Prices of Silver, Lead and Zinc.**—In view of the close association in Australia, particularly in New South Wales, of ores containing these metals, the average prices in sterling of each metal on the London Metal Exchange during the years shown have been incorporated in the table hereunder. During 1942, 1943 and 1944, prices remained unchanged at the 1941 levels.

PRICES OF SILVER, LEAD AND SPELTER.

(In Sterling).

Metal.	1938.	1939.	1940.	1941.	1945.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Silver (Standard) per oz.	0 1 9.06	0 1 10.02	0 1 10.28	0 2 1.37	0 2 6.50
Lead .. per ton	15 6 6	15 13 2	25 0 0	25 0 0	27 15 11
Spelter „ „	14 1 7	14 13 3	25 15 0	25 15 0	28 16 7

(a) Maximum price as fixed by the British Ministry of Supply.

At the outbreak of war in September, 1939, the prices of lead and zinc were fixed in London by the Ministry of Supply at £Stg16 12s. 6d. and £Stg15 respectively. On 18th December, 1939 increases to £Stg25 and £Stg25 15s. respectively, were permitted. During January, 1946 the price was increased to £Stg39 for lead and £Stg31 5s. for zinc and further increased in April, 1946, to £Stg45 and £Stg39 5s. per ton respectively. In Australia prices were fixed on 19th December, 1939, at £A20 17s. 8d. per ton for lead and £A20 2s. 6d. per ton for zinc, and increases to £A22 per ton for each metal were made in February, 1940. No further changes were recorded in Australia up to May, 1946.

7. Employment in Silver, Lead and Zinc-mining.—The average number of persons employed in mining for these metals during each of the years 1938 to 1943 is given below:—

SILVER, LEAD AND ZINC-MINING : PERSONS EMPLOYED.

Year.	N.S.W.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Terr.	Australia.
	No.	No.	No.	No.	No.	No.	No.
1938 ..	5,612	530	..	4	421	3	6,570
1939 ..	5,137	550	5	2	401	..	6,095
1940 ..	4,904	493	6	..	367	..	5,770
1941 ..	4,419	461	2	..	554	..	5,436
1942 ..	4,104	471	..	..	509	..	5,084
1943 ..	3,982	239	..	2	491	..	4,714

§ 4. Copper.

1. **Production.**—Copper is widely distributed throughout Australia and the quantity produced is dependent largely upon the price situation. South Australia and New South Wales were once large producers but the output of these States is much less than it was in earlier years. The chief sources of production are now centred in Queensland and Tasmania.

The values of the local production as reported and credited to the mineral industry for the years 1938 to 1943 are shown hereunder. Quantities for Australia as a whole, as returned by the several State Mines Departments, are appended on separate lines at the foot of the table:—

COPPER : PRODUCTION.

State.	1938.	1939.	1940.	1941.	1942.	1943.
	£	£	£	£	£	£
New South Wales ..	87,905	105,407	103,701	117,490	277,376	379,800
Queensland.. ..	203,967	289,927	428,263	620,996	625,375	1,111,049
South Australia ..	15,333	6,612	21,083	41,390	31,715	10,100
Western Australia ..	1,275	1,373	873	154	738	33
Tasmania	580,238	668,561	717,464	721,985	730,675	691,199
Northern Territory ..	4,362	2,248	1,072	3,185	..	2,393
Australia	893,080	1,074,128	1,272,456	1,505,200	1,665,879	2,194,574
Ingot, Matte, etc. ...	Tons. 18,751	Tons. 21,408	Tons.	Tons.	Tons.	Tons.
Ore and Concentrates	935		20,354	21,787	21,699	25,894

In the following table, details of the production, sales and stocks of refined copper, as compiled by the Australian Mines and Metals Association, are given for the years indicated:—

REFINED COPPER : PRODUCTION, SALES AND STOCKS, AUSTRALIA.

Unit : Tons of 2,240 lb.

Particulars.	1939.	1940.	1941.	1942.	1943.	1944.
Stocks from previous year ..	1,342	301	278	988	972	587
Production for year	17,867	18,141	21,668	24,609	20,457	19,898
Total	19,209	18,442	21,946	25,597	21,429	20,485
Sold to Australian consumers	18,808	18,164	20,958	24,625	20,842	19,685
Exported or sold for export..	100	..	..	..	..	..
Stocks on hand at end of year	301	278	988	972	587	800
Total	19,209	18,442	21,946	25,597	21,429	20,485

2. Sources of Production.—(i) *New South Wales.* The copper contents of ores and concentrates produced in New South Wales in 1943 amounted to 2,279 tons, the greatest quantity produced in that State for many years. Previously production in New South Wales rarely exceeded 1,000 tons although it ranged from 2,500 tons in 1915 to 10,600 tons in 1911.

(ii) *Queensland.* In 1943 the yield of metallic copper in this State amounted to 10,758 tons valued at £1,111,049, and in 1944 15,804 tons valued at £1,644,747 were produced. This is the highest yield since 1920 when 15,897 tons valued at £1,552,000

were produced. The falling-off in the interim years was due primarily to the low prices realized for copper. The returns from the chief producing areas in 1944 were as follows :— Cloncurry, 12,421 tons, £1,304,170; and Mount Morgan, 3,145 tons, £315,680.

(iii) *South Australia.* Deposits of copper are found over a large portion of South Australia and its total production to date easily exceeds that of any other State. Compared with the output of previous years the production of South Australia has decreased during recent times, and is now exceeded by that of Tasmania, Queensland and New South Wales. A short account of the discovery, etc., of some of the principal mining areas, such as Kapunda, Burra Burra, Wallaroo and Moonta, is given in earlier issues of the Official Year Book. The Moonta and Wallaroo copper field, which was opened in 1860, was worked continuously, and up to the close of 1931 £20,500,000 of copper was produced. Between 1933 and 1938 the field was worked on a co-operative basis known as the Moonta Mining Scheme, to which reference is made in previous issues of the Official Year Book. Owing to the exhaustion of the ore reserves the operations of the scheme ceased in August, 1938. However, owing to the exploitation of new boreholes, the output has increased and the production of copper in the State in 1942 amounted to 392 tons, valued at £31,715, but fell to 102 tons, valued at £10,100, in 1943.

(iv) *Western Australia.* During 1943 the quantity of copper reported was 7 cwt. valued at £33 compared with 47 tons for £738 in 1942.

(v) *Tasmania.* The quantity of copper produced in Tasmania during 1943 was 11,148 tons, valued at £691,199, the Mount Lyell Mining and Railway Co. Ltd. accounting for the whole of the production. This company treated 49,877 tons of ore and concentrates and produced blister copper, containing copper 10,684 tons, silver 44,321 oz., and gold 7,220 oz., the whole being valued at £41,114,628.

(vi) *Northern Territory.* Copper has been found at various places in the Territory. For the eighteen months ended December, 1936, 204 tons of ore were raised. This was the first production recorded since 1932–33. Production in 1939 amounted to 96 tons valued at £2,248; in 1940, 64 tons, £1,072; and in 1941, 300 tons, £3,185. No production was recorded in 1942, but 88 tons, valued at £2,393, were produced in 1943.

3. *World's Production of Copper.*—The world's production of copper during the five years 1935 to 1939 was estimated as follows. The figures have been taken from the statistical summary prepared by the Imperial Institute or from other authoritative sources. Later figures are not available.

COPPER : WORLD'S PRODUCTION.

1935.	1936.	1937.	1938.	1939.
Tons.	Tons.	Tons.	Tons.	Tons.
1,470,000	1,700,000	2,300,000	2,020,000	2,160,000

The yields from the principal copper-producing countries in 1939 were as follows :—

COPPER : PRODUCTION IN PRINCIPAL COUNTRIES, 1939.

Country.	Production.	Country.	Production.
	Tons.		Tons.
United States of America ..	661,000	Mexico	49,000
Chile	339,000	Yugoslavia	42,000
Canada	281,000	Peru	35,000
Rhodesia	216,000	Cyprus	24,000
Belgian Congo	122,000	Germany	30,000
U.S.S.R. (Russia)	107,000	Spain	25,000
Japan	77,000	Australia	21,408

During 1939 the share of the United States of America in the world's copper production amounted to 31 per cent. while the Australian proportion was less than 1 per cent.

4. **Prices.**—At the outbreak of war in 1939, the price of copper in the United Kingdom was fixed at £Stg51 per ton but was increased to £Stg62 in December of the same year at which level it remained until April, 1946, when it was increased to £Stg72 per ton.

In Australia the price was fixed at £A63 17s. 6d. per ton on 19th December, 1939, and further increased to £A76 per ton on 16th February, 1940, and to £A78 10s. per ton on 7th February, 1941. On the latter date supplies of local and imported copper were pooled and sold to consumers at the increased price to offset the loss on copper imported at a higher figure. The price paid to local producers, however, remained at £A76 per ton. Increased mining costs made a further rise necessary and the price was raised on 5th May, 1941, to £A86 10s. from which an amount of £A1 10s. is set aside to provide a bonus of £A5 per ton on production from new sources or on increased supplies from existing sources. On 28th May, 1942, the price was raised to £A105 per ton in an effort to increase Australian production and from this amount a bonus of £A5 per ton is provided for all output which is in excess of the normal. In January, 1946 the price to buyers was reduced to £A95 but the price to producers remained unaltered.

5. **Employment in Copper-mining.**—The number of persons employed in copper-mining during each of the years 1938 to 1943 was as follows:—

COPPER-MINING : PERSONS EMPLOYED.

Year.	N.S.W.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Australia.
	No.	No.	No.	No.	No.	No.	No.
1938	13	213	67	4	1,015	5	1,317
1939	5	224	36	4	1,017	5	1,291
1940	9	222	45	2	997	5	1,280
1941	20	271	44	2	924	5	1,266
1942	79	419	52	5	1,595	7	2,157
1943	260	864	36	1	1,577	1	2,739

In 1917 over 9,000 persons were engaged in copper-mining.

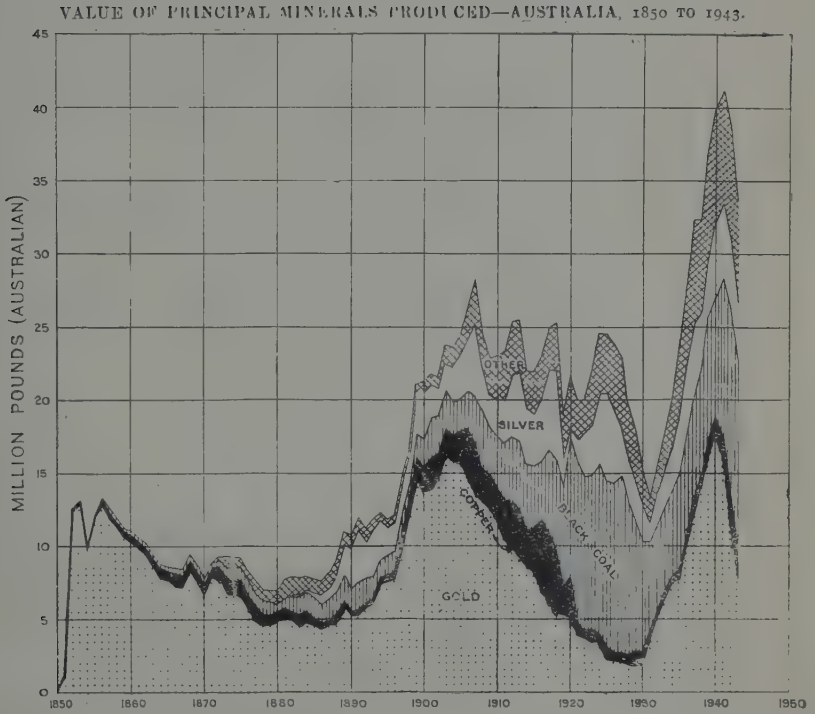
§ 5. Tin.

1. **Production.**—The values of the production of tin as reported to the Mines Departments in each of the States during the six years 1938 to 1943 are given in the following table. A separate line is appended showing the production of refined tin as recorded by the Australian Mines and Metals Association for the years indicated.

TIN : PRODUCTION.

State.	1938.	1939.	1940.	1941.	1942.	1943.
	£	£	£	£	£	£
New South Wales ..	286,768	366,138	373,435	443,123	417,210	403,320
Victoria ..	28,650	47,233	32,253	19,569	19,173	14,162
Queensland ..	141,547	200,652	223,626	204,232	150,454	167,176
South Australia ..	..	..	..	..	..	10
Western Australia ..	7,421	3,871	5,174	1,874	4,634	2,315
Tasmania ..	244,037	282,798	367,127	328,340	297,919	246,218
Northern Territory ..	3,205	4,487	4,533	4,041	6,627	5,594
Total ..	711,628	905,179	1,006,148	1,001,179	896,017	838,795
Refined Tin ..	Tons. (a)	Tons. 3,294	Tons. 3,544	Tons. 3,656	Tons. 3,024	Tons. 2,565

(a) Not available.



EXPLANATION.—The upper curve represents the total value of mineral production while the vertical distances between the curves represent the value of production of each mineral.

2. **Sources of Production.**—(i) *New South Wales.* Production of tin in 1943 was stated at 1,074 tons of ingots. A large proportion of the output in this State is obtained in normal years by dredging, principally in the New England district.

(ii) *Victoria.* The production of tin in this State is obtained chiefly by dredging in the Beechworth district and by mining in the Toora district in Gippsland. The production in 1943 amounted to 60 tons of concentrates, valued at £14,162, compared with 84 tons, valued at £19,173, in 1942.

(iii) *Queensland.* The chief producing districts in Queensland during 1943 were Herberton, 1,085 tons, valued at £241,155; Cooktown, 34 tons, £7,681; Stanthorpe, 63 tons, £15,260; Chillagoe, 25 tons, £5,564 and Kangaroo Hills, 23 tons, £5,003. The total production in 1943, 785 tons valued at £167,176, was a decrease of 300 tons and £57,056 on that for 1937, but production of tin concentrates in 1944 amounted to 1,232 tons, valued at £275,185, the highest value since 1913. It is interesting to compare these figures with those recorded in the early years of this century when the production ranged between 2,000 and 5,000 tons per annum.

(iv) *Western Australia.* The quantity of tin reported in this State in 1943 amounted to 11 tons, valued at £2,315, and was obtained mainly in the Pilbara and Greenbushes fields.

(v) *Tasmania.* For 1943 the output amounted to 949 tons of tin, valued at £246,218, a decrease of 199 tons and £51,701 from the return for the previous year, and the lowest production since 1934, when 953 tons were produced.

(vi) *Northern Territory.* The production for 1943 amounted to 26 tons of concentrates valued at £5,554, compared with 32 tons of concentrates valued at £6,627 produced during 1942.

3. **World's Production.**—The world's production of tin during each of the last five years for which figures are available was as follows:—

TIN : WORLD'S PRODUCTION.

1935.	1936.	1937.	1938.	1939.
Tons.	Tons.	Tons.	Tons.	Tons.
136,000	179,000	206,000	157,000	183,000

The production of tin reached its maximum in 1937 when 206,000 tons were recorded. The chief producing countries of the world in 1939 were:—Malaya, Netherlands East Indies, Bolivia and Thailand. These countries produced about three-quarters of the total production.

The yields from the principal producing countries in 1939 were as follows:—

TIN : PRODUCTION IN PRINCIPAL COUNTRIES, 1939.

Country.	Production.	Country.	Production.
	Tons.		Tons.
Malaya	55,950	Burma	5,750
Netherlands East Indies ..	31,281	Australia	4,083
Bolivia	27,215	Argentina	2,481
Thailand	16,998	United Kingdom ..	1,800
China	10,859	Japan	1,700
Nigeria	10,855	Indo-China	1,392
Belgian Congo	9,663	Portugal	1,005

Australia's share of the world's tin production, estimated at 183,000 tons in 1939, would appear to be a little more than 2 per cent.

4. **Prices.**—At the outbreak of war in September, 1939 the price of tin in London was controlled, and fixed at £Stg230 per ton. In December, 1939 the price was unpegged and immediately rose to £Stg271. Following the declaration of war by Japan in December, 1941, the price of tin was officially fixed at £Stg260 per ton and remained at that level until January, 1944, when it was increased to £Stg300 per ton. In April, 1946 the price was further increased to £Stg357 per ton.

In Australia the domestic price, which at the outbreak of war in 1939 was £A294 per ton, was increased to £A299 per ton in October, 1939, to £A306 per ton in February, 1940, and to £A320 per ton in April, 1941. It was increased to £A371 per ton in May, 1942 in order to stimulate production. This price, which has been maintained to May, 1946, includes a margin of £10 per ton which is pooled to stimulate development of less profitable areas.

5. **Employment in Tin-mining.**—The number of persons employed in tin-mining during the years 1938 to 1943 was as follows :—

TIN-MINING : PERSONS EMPLOYED.

Year.	N.S.W.	Victoria. (a)	Q'land.	W. Aust.	Tas.	Nor. Terr.	Australia.
	No.	No.	No.	No.	No.	No.	No.
1938	1,440	5	1,263	73	1,123	15	3,919
1939	1,566	5	1,375	50	1,100	17	4,113
1940	1,686	5	1,037	39	1,094	40	3,901
1941	1,616	3	985	18	904	45	3,571
1942	1,243	3	589	15	801	(b) 49	(c) 2,702
1943	1,175	4	599	7	847	(b) 45	(c) 2,679

(a) The tin produced in Victoria was raised by a dredging company operating primarily for gold.

(b) Including some engaged in mining for tantalite.

(c) Includes two miners in South Australia.

§ 6. Zinc.

1. **Production : States.**—(i) *New South Wales.* The production of zinciferous concentrates is confined chiefly to the Broken Hill district of New South Wales, where zincblende forms one of the chief constituents in the enormous deposits of sulphide ores. The re-opening in 1937 of the mine at Captain's Flat by the Lake George Mines, Ltd. was an important development. Production commenced in 1939. Details of the zinc contents of ores and concentrates produced at this mine are given in the table below.

As the metallic contents of the bulk of the concentrates, etc., produced from these fields are extracted outside New South Wales, the mineral industry of that State is not credited by the Mines Department with the value of the finished product. During 1943 the zinc concentrates produced amounted to 283,964 tons, valued at £781,737. Portion of the zinc concentrates produced is treated at Risdon in Tasmania and the balance is exported, mainly to the United Kingdom and the United States of America. The production from these concentrates treated by the Electrolytic Zinc Company of Australia Ltd. at Risdon amounted to 51,266 tons of zinc, 117.23 tons of cadmium and 13.7 tons of cobalt oxide in 1943. This is referred to in the Tasmanian production below.

(ii) *Queensland.* The production of zinc in the Cloncurry district of Queensland during 1943 was 5,077 tons, valued at £76,158, compared with 21,035 tons valued at £394,412 in 1942 and 4,411 tons valued at £68,863, obtained in 1935. The metal was produced by the Mount Isa Mines Ltd. and is exported overseas as concentrates. There was no production of zinc in 1944.

(iii) *South Australia.* Zinc is known to exist in various localities in South Australia, but there has been no production during recent years.

(iv) *Tasmania.* The production of zinc from Tasmanian ores was suspended from 1931 to 1935. Developmental work on the Mount Read-Rosebery district was continued during that period and production commenced in 1936. In 1937—the first full year's operations since the inception of milling at Rosebery—23,481 tons, valued at £525,824, were obtained. In 1943, 21,079 tons of zinc, valued at £574,398, were obtained from Tasmanian ores, as well as 40 tons of cadmium valued at £18,072 and 13 cwt. of cobalt oxide valued at £304.

In addition to the above, the Electrolytic Zinc Company at Risdon operated on raw materials obtained from Broken Hill in New South Wales. Production from this source during 1943 amounted to 51,266 tons of slab zinc, valued at £1,179,118, 117.23 tons of cadmium, valued at £52,537, and 13.7 tons of cobalt oxide, valued at £6,300.

2. **Production : Australia.**—The details furnished above do not adequately convey the potentialities of Australia as a producer of zinc. A better indication is given in the following table which shows the estimated zinc contents of ores and concentrates produced in Australia according to data compiled by the Australian Mines and Metals Association.

ZINC CONTENTS OF ORES AND CONCENTRATES PRODUCED.

Year.	New South Wales.			Queensland.	Tasmania.	Australia.
	Broken Hill.	Lake George.	Total.	Mt. Isa.	Rosebery.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1939 ..	157,797	11,850	169,647	29,092	31,107	229,846
1940 ..	165,478	19,358	184,836	29,584	32,338	246,758
1941 ..	172,133	18,930	191,063	27,447	30,595	249,105
1942 ..	150,948	21,309	172,257	21,035	28,362	221,654
1943 ..	128,151	23,242	151,393	5,077	26,430	182,900
1944 ..	128,334	19,657	147,991	..	26,317	174,308

In the next table details are given of the quantity of refined zinc produced in Australia, the quantity sold and stocks held for the years 1939 to 1944, according to data compiled by the Australian Mines and Metals Association.

REFINED ZINC : PRODUCTION, SALES AND STOCKS, AUSTRALIA.

Particulars.	1939.	1940.	1941.	1942.	1943.	1944.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Stocks from previous year ..	3,225	220	900	2,115	4,420	3,314
Production for year ..	71,220	75,957	77,698	74,282	75,756	78,716
Total	74,445	76,177	78,598	76,397	80,176	82,030
Sold to Australian consumers	31,088	40,552	46,082	54,526	32,958	19,828
Exported or sold for export ..	43,137	34,725	30,401	17,451	43,904	50,907
Stocks on hand at end of year	220	900	2,115	4,420	3,314	11,295
Total	74,445	76,177	78,598	76,397	80,176	82,030

3. **World's Production.**—The world's production of zinc ore in terms of metal during the five years 1934 to 1938, the latest for which particulars are available, was as follows :—

ZINC : WORLD'S PRODUCTION.

1934.	1935.	1936.	1937.	1938.
Tons.	Tons.	Tons.	Tons.	Tons.
1,162,000	1,540,000	1,700,000	1,860,000	1,840,000

The yields from the principal producing countries in 1938 are given hereunder, the figures referring to slab zinc produced in the various countries, irrespective of the source of the ore :—

ZINC : PRODUCTION IN PRINCIPAL COUNTRIES, 1938.

Country.	Production.	Country.	Production.
	Tons.		Tons.
United States of America ..	398,500	United Kingdom ..	55,000
Belgium	207,000	Japan	50,000
Germany	191,300	Norway	45,000
Canada	153,500	Mexico	33,100
Poland	106,400	Italy	36,900
Australia	72,786	Netherlands	24,900
U.S.S.R. (Russia) ..	70,000	Rhodesia	10,200
France	60,000	Czechoslovakia	8,700

The production of Australia quoted above represents the actual quantity of metal extracted in Australia and omits, therefore, the zinc contents of ores and concentrates exported. If this quantity was included, the total production would amount to 162,830 tons, or about 9 per cent. of the world's output.

4. **Prices and Employment.**—Information regarding prices of zinc and employment in zinc-mining will be found on page 979.

§ 7. Iron.

1. **General.**—Although iron ore is widely distributed throughout Australia, the only known ore bodies of large extent, high grade and easy of access are those situated at Yampi Sound, Western Australia, and at Iron Knob, South Australia. Estimates of the reserves at these centres place the quantities available at approximately 100 million tons and 150 million tons respectively. Bearing in mind the expansion of the iron industry in Australia, and the limitations of these reserves, the Commonwealth Government prohibited the export of iron ore from 1st July, 1938. A survey of the iron ore resources of Australia undertaken by the Commonwealth Geologist was completed at the end of 1940.

2. **Production.**—(i) *New South Wales.* The production in 1935 of pig-iron from ores mined in New South Wales amounted to 4,580 tons, valued at £18,320. No iron ores were produced from 1935 until 1941 when 202,180 tons of ore were mined. In 1942, 375,297 tons were mined but only 204,442 tons in 1943. For many years the chief source of supply has been South Australia.

Small quantities of iron oxide produced in New South Wales are used by the various gas-works for purifying gas, and also in the manufacture of paper, and for pigments. These supplies are drawn chiefly from the deposits in the Port Macquarie Division. During 1943 the iron oxide raised amounted to 7,363 tons, valued at £5,822. Ironstone flux amounting to 2,432 tons valued at £950 was raised in the Goulburn Division during 1933. This is the only production recorded since 1922.

(ii) *Queensland.* Extensive deposits of iron ore are known to exist in Queensland. Their location and size, however, preclude their exploitation in comparison with the more favourable deposits of South Australia. In 1943, 3,046 tons of ore were obtained and used as a flux at the Chillagoe State Smelters.

(iii) *South Australia.* The production from the deposits worked by the Broken Hill Pty. Co. Ltd., at Iron Knob and at Middlebank reached its maximum in 1939, when 2,571,759 tons of ore valued at £2,957,523 were raised. The production of 2,182,831 tons, valued at £2,510,256 for 1943, represents a decrease of 388,928 tons and £447,267 on the 1939 figures.

(iv) *Western Australia.* The development of the deposits at Yampi Sound was discontinued in 1938 as a result of the embargo on exports. However, 150 tons of iron ore valued at £225 were reported in 1942 for the first time since 1938. Production in 1943 amounted to 84 tons valued at £128.

At the end of 1944 Australian Iron & Steel Co. Ltd. on behalf of Broken Hill Proprietary Coy. Ltd. started preliminary work connected with the development and mining of the iron ore on Cockatoo Island, and it was estimated that substantial output would not be attained for two years. The ore would be mixed with the iron ore from the Iron Monarch mine in South Australia to reduce the manganese content of the furnace charge to an acceptable figure. The Iron Monarch ore has a high manganese content.

(v) *Tasmania.* There was no production of ironstone in Tasmania during 1942, but in 1943 7 tons valued at £14 were produced. The production of iron pyrites, which in 1943 amounted to 33,203 tons, valued at £41,504, is not included in the mineral returns, but is credited to the manufacturing industry, as it is a by-product from the flotation of copper ore at Mount Lyell. This product is exported to the mainland, where the sulphur contents have displaced imported sulphur in the manufacture of chemical fertilizers. The recovery has grown considerably since 1932, when the output amounted to 274 tons.

(vi) *Other States.* Reference to the iron ore deposits in the various States appears in preceding issues of the Official Year Book (see No. 22, p. 779).

3. **Iron and Steel Bounties.**—During 1943-44 the bounties paid under the Bounties Acts on articles manufactured from locally produced materials were as follows: Wire-netting, £447; traction engines, £5,652. Corresponding amounts paid during 1942-43 were £421 and £850 respectively.

4. **World's Production of Iron and Steel.**—(i) *General.* According to the *The Mineral Industry*, the production in the principal countries during the latest available three years are shown in the next table. The figures for 1939 are in many instances estimates and, particularly for belligerent countries, should be accepted with some reserve.

PIG-IRON AND STEEL : WORLD'S PRODUCTION.

Country.	Pig-iron			Steel Ingots and Castings		
	1937.	1938.	1939.	1937.	1938.	1939.
	Thousands of Tons.			Thousands of Tons.		
U.S.A.	37,127	19,161	31,604	51,792	28,739	47,732
Germany	15,957	18,226	19,828	19,816	22,875	24,139
U.S.S.R. (Russia) ..	14,520	14,479	15,374	17,824	17,802	17,439
Great Britain	8,497	6,763	8,130	12,963	10,394	13,559
France	7,917	5,956	7,826	7,761	6,080	8,402
Japan	3,561	3,040	3,320	6,423	5,930	6,230
Belgium	3,843	2,426	3,019	3,777	2,249	3,061
Italy	790	850	950	2,087	2,285	2,339
Luxemburg	2,513	1,527	1,812	2,510	1,413	1,650
Canada	898	758	831	1,401	1,156	1,385
Australia	664	1,072	1,250	805	1,154	1,250
Czechoslovakia	1,675	1,215	900	2,315	1,733	1,230
Poland	724	952	810	1,450	1,522	1,201
Sweden	646	947	612	1,104	964	1,080
India	1,453	1,628	1,800	971	950	1,050
Hungary	362	345	350	706	650	739
Austria	389	(x)	(a)	650	(a)	(a)
Union of South Africa	272	271	304	332	341	345
Total—All Countries	102,848	80,452	104,494	135,317	107,157	132,857

(a) Included with Germany.

The figures for the world's production of iron and steel reached exceptionally low levels in 1932, namely, pig-iron, 39,275,000 tons; steel, 50,029,000 tons. From that year onwards all steel-producing nations recorded continuous increases in production, but in 1938 a marked decline was recorded. During 1939, however, the fear of war created greater demands for pig-iron and steel. The output of the former metal reached record proportions in Germany, Union of Soviet Socialist Republics, Italy and Japan, while new records in steel production were attained in Great Britain, Germany, Italy and Japan.

The principal producers in Australia are the Broken Hill Pty. Co Ltd. and the Australian Iron and Steel Ltd., the former situated at Newcastle and the latter at Port Kembla in New South Wales. In South Australia, the Broken Hill Pty. Co. Ltd. established a blast furnace at Whyalla which was blown in during May, 1941, and continued to operate until May, 1944. Production was resumed during April, 1946.

(ii) *Australia.* The production of steel and pig-iron in Australia, of which New South Wales is the main producing State, is shown for each of the years 1934-35 to 1943-44

PIG-IRON AND STEEL : AUSTRALIAN PRODUCTION.

Year ended 30th June—	Pig-iron.	Steel Ingots.	Steel Rails, Bars and Sections.	Year ended 30th June—	Pig iron.	Steel Ingots.	Steel Rails, Bars and Sections.
	Tons.	Tons.	Tons.		Tons.	Tons.	Tons.
1939 ..	698,493	696,861	585,838	1940 ..	1,212,006	1,292,115	1,034,714
1936 ..	783,233	820,335	671,244	1941 ..	1,475,707	1,647,108	1,319,544
1937 ..	913,406	1,079,854	837,445	1942 ..	1,557,641	1,699,793	1,421,059
1938 ..	929,676	1,167,340	906,426	1943 ..	1,399,306	1,632,825	1,166,858
1939 ..	1,104,605	1,171,787	985,035	1944 ..	1,305,357	1,527,564	1,225,524

§ 8. Other Metallic Minerals.

1. **Wolfram and Scheelite.**—Tungsten ores occur in several of the States in the Northern Territory and on King Island in Bass Strait, the last-named being included with Tasmania. Production during 1938 and the four years 1940 to 1943 is shown in the following table :—

WOLFRAM AND SCHEELITE : PRODUCTION.

Particulars.		1938.	1940.	1941.	1942.	1943.
WOLFRAM.						
New South Wales	cwt.	1,877	880	1,175	760	840
	£	25,740	8,364	13,044	11,655	14,033
Victoria..	cwt.	..	..	5	42	282
	£	..	..	75	1,059	5,041
Queensland	cwt.	3,015	2,271	2,400	3,803	3,027
	£	30,779	20,345	22,627	63,296	56,778
South Australia	cwt.	..	..	..	..	3
	£	..	..	..	6	10
Western Australia	cwt.	..	20	..	4	..
	£	..	211	..	115	80
Tasmania	cwt.	5,982	4,686	4,720	3,660	4,600
	£	63,348	42,319	42,536	58,397	82,965
Northern Territory	cwt.	8,694	5,800	6,142	3,016	3,769
	£	78,277	47,828	52,326	43,734	58,166
Total	cwt.	19,568	13,657	14,442	11,285	12,521
	£	198,144	119,067	130,608	178,262	217,073

SCHEELITE.

New South Wales	cwt.	184	390	405	260	460
	£	2,472	4,603	4,413	5,807	9,185
Queensland	cwt.	13	11	14	28	48
	£	93	94	98	546	889
Western Australia	cwt.	..	145	6	1	5
	£	..	1,559	101	357	2,664
Tasmania	cwt.	611	5,510	4,940	4,300	3,984
	£	6,193	49,120	42,700	71,353	68,908
Total	cwt.	808	6,056	5,365	4,589	4,497
	£	8,758	55,376	47,312	78,063	81,646

2. **Cadmium.**—Cadmium is extracted at Risdon in Tasmania as a by-product from ores mined at Broken Hill in New South Wales, and on the west coast of Tasmania. The particulars given in the following table refer to the production of metal and do not include the cadmium contents of zinc ores or concentrates exported overseas.

3. **Cobalt.**—The recovery of this metal as an oxide is obtained in the same way as cadmium. It is recovered from the treatment of silver, lead and zinc ores of Broken Hill and Tasmanian origin. The production together with that of cadmium is given for the years 1938 to 1943 in the following table:—

PRODUCTION OF CADMIUM AND COBALT.

Year.	Cadmium.				Cobalt Oxide,			
	Extracted in Tasmania from Ores mined in—				Extracted in Tasmania from Ores mined in—			
	New South Wales.	Tasmania.	Total.		New South Wales.	Tasmania.	Total.	
	Cwt.	Cwt.	Cwt.	£	Cwt.	Cwt.	Cwt.	£
1938	2,943	980	3,923	79,406	377	12	389	8,084
1939	2,488	960	3,448	56,343	390	16	406	9,319
1940	2,449	1,000	3,449	59,390	356	7	363	8,430
1941	2,897	941	3,838	69,749	397	8	405	9,417
1942	2,436	828	3,264	72,218	325	45	370	8,981
1943	2,344	807	3,151	70,609	274	13	287	6,604

The figures given above do not include the metallic contents of cadmium and cobalt contained in the ores and concentrates exported overseas.

4. **Platinum and Platinoid Metals.**—(i) *Platinum.*—(a) *New South Wales.* The deposits at present worked in the State are situated in the Fifield division, near Parkes and in the Ballina division. The production in 1943 from all divisions amounted to 3 oz. valued at £37, as compared with 2 oz. valued at £30 in the preceding year. The total production recorded to the end of 1943 amounted to 20,239 oz., valued at £128,954.

(b) *Victoria.* In Gippsland the metal has been found in association with copper and 127 oz. were produced in 1913, but there has been no production in recent years.

(c) *Queensland.* Platinum, associated with osmiridium, has been found in the beach sands between Southport and Currumbin, in creeks on the Russell gold-field near Innisfail, and in alluvial deposits on the Gympie gold-field, but no production has been recorded.

(ii) *Osmium, Iridium, etc.*—(a) *New South Wales.* Small quantities of osmium, iridium and rhodium are found in various localities. Platinum, associated with iridium and osmium, has been found in the washings from the Aberfoil River, about 15 miles from Oban; on the beach sands of the northern coast: in the gem sands at Bingara, Mudgee, Bathurst and other places. In some cases, as for example in the beach sands of Ballina, the osmiridium and other platinoid metals amount to as much as 40 per cent. of the platinum, or about 28 per cent. of the whole metallic content. There was no production of these metals during 1943.

(b) *Victoria.* In Victoria, iridosmine has been found near Foster, and at Waratah Range, South Gippsland.

(c) *Tasmania.* The yield of osmiridium was returned as 90 oz. in 1943, valued at £2,087, compared with the record production in 1925 of 3,365 oz., valued at £103,570. The decrease in later years was largely due to the decline in price from £31 in 1925 to £15 os. 4d. per oz. in 1938 (although the price rose to £24 19s. 1d. per oz. in 1940 and reached £23 3s. 9d. in 1943), but the depletion of the known alluvial deposits was also a factor.

5. **Other.**—Detailed information in regard to occurrence and production of other metallic minerals in each of the States appears in Official Year Book No. 22, pp. 780-3 and in preceding issues.

§ 9. Coal.

1. *Production in each State.*—An account of the discovery of coal in each State appears in preceding issues of the Official Year Book (see No. 3, pp. 515-6). The quantity and value of the production in each State and in Australia during 1914, 1924, 1934 and each of the years 1938 to 1944 are given in the following table:—

BLACK COAL : PRODUCTION.

Year.	N.S.W.	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
QUANTITY.							
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1914 ..	10,390,622	620,251	1,053,990	..	319,210	60,794	12,444,867
1924 ..	11,618,216	518,315	1,123,117	..	421,864	75,988	13,757,500
1934 ..	7,873,180	356,958	956,558	..	500,343	113,633	9,800,672
1938 ..	9,570,930	307,258	1,113,426	..	604,792	83,753	11,680,159
1939 ..	11,195,832	364,895	1,317,488	..	557,535	99,392	13,535,142
1940 ..	9,550,098	267,694	1,285,328	..	539,427	83,136	11,725,683
1941 ..	11,765,698	326,441	1,454,024	..	556,574	109,714	14,212,451
1942 ..	12,236,219	312,854	1,637,148	1,650	581,176	134,442	14,903,489
1943 ..	11,528,893	287,100	1,699,521	..	531,546	145,882	14,192,942
1944 ..	11,102,138	257,692	1,659,675	34,620	558,323	143,641	13,756,089
VALUE. (b)							
	£	£	£	£	£	£	£
1914 ..	3,737,761	289,099	416,292	..	148,684	27,853	4,619,689
1924 ..	9,589,547	569,555	985,542	..	363,255	66,555	11,574,454
1934 ..	4,541,923	215,413	752,303	..	278,704	81,262	5,869,605
1938 ..	5,003,842	188,101	958,884	..	375,083	61,991	7,187,901
1939 ..	6,768,659	259,814	1,167,844	..	362,811	74,460	8,633,588
1940 ..	6,125,585	230,452	1,151,567	..	364,500	63,688	7,935,792
1941 ..	8,265,881	303,761	1,404,646	..	389,278	85,311	10,448,877
1942 ..	9,472,363	411,107	1,698,231	1,650	461,495	108,241	12,153,087
1943 ..	9,290,095	429,358	1,824,591	..	489,721	117,361	12,151,126
1944 ..	9,206,063	407,793	1,785,621	12,117	583,076	122,673	12,117,343

(a) Excludes brown coal, shown in next table.

(b) At the pit's mouth.

The figures for Victoria already quoted exclude brown coal, the quantities and values of which were as follows:—

BROWN COAL : PRODUCTION IN VICTORIA.

Year.	Quantity.	Value. (a)	Year.	Quantity.	Value. (a)
	Tons.	£		Tons.	£
1914 ..	2,715	564	1940 ..	4,278,475	391,549
1924 ..	127,490	41,116	1941 ..	4,565,638	422,993
1934 ..	2,617,534	264,192	1942 ..	4,933,861	469,699
1938 ..	3,675,450	351,721	1943 ..	5,091,729	528,666
1939 ..	3,651,014	385,952	1944 ..	5,016,437	566,444

(a) Cost of Production.

2. *Distribution and Production of Coal in each State.*—(i) *New South Wales.*—The coal deposits of New South Wales are the most important and extensively worked in Australia. The principal fields are known as the Northern, Southern and Western, and are situated at Newcastle, Bulli and Lithgow respectively.

The coal from the various districts differs considerably in quality—that from the Northern district being especially suitable for gas-making, household purposes and steam, while the product of the Southern and Western is essentially a steaming coal.

The Greta coal seams in the Northern division are being worked extensively between West Maitland and Cessnock, and this stretch of country, covering a distance of 15 miles, is the most important coal-mining district in Australia.

The following table gives the yields in each of the three districts during the four years 1941 to 1944 compared with 1938 :—

COAL : PRODUCTION IN DISTRICTS OF NEW SOUTH WALES.

District.	1938.	1941.	1942.	1943.	1944.
	Tons.	Tons.	Tons.	Tons.	Tons.
Northern	6,294,213	7,891,123	8,300,356	7,854,173	7,363,484
Southern	1,831,408	2,242,490	2,303,071	2,175,935	2,040,453
Western	1,445,309	1,632,085	1,632,792	1,498,785	1,698,201
Total	9,570,930	11,765,698	12,236,219	11,528,893	11,102,138
Total Value (a) £ ..	5,603,842	8,265,881	9,472,363	9,290,095	9,206,063
Average value per ton (a) ..	11s. 8½d.	14s. 1d.	15s. 6d.	16s. 1d.	16s. 7d.

(a) At the pit's mouth.

The production of coal in New South Wales exceeded 10 million tons in each year from 1920 to 1927, the maximum annual production in this period being in 1924, when 11,618,000 tons were produced. Consequent upon the economic depression, production fell to 6,400,000 tons in 1931, but steadily increased each year to 11,195,832 tons in 1939. Movement in production since the outbreak of war in 1939 is shown in the table above. Of the total quantity of coal won in New South Wales since the commencement of operations to the end of 1943, namely, 512 million tons, about 346 million tons or 68 per cent. was obtained in the Northern District, 103 million tons or 20 per cent. in the Southern District, and 63 million tons or 12 per cent. in the Western District.

(ii) *Victoria.* (a) *Black Coal.* The deposits of black coal in Victoria occur in three main areas in the southern portion of the State, namely, the Wannon, the Otway and South Gippsland, which total approximately 3,500 square miles. The workable seams are restricted to the South Gippsland area, where the thickness ranges from 2 feet 3 inches to 6 feet. The total quantity of black coal mined in Victoria to the end of 1944 amounted to 19,768,938 tons valued at £15,861,792.

The output of black coal in Victoria during each of the four years ended 1944 compared with 1938 was as follows :—

BLACK COAL : PRODUCTION IN VICTORIA.

Year.	State Coal-mines.	Other Coal-mines.	Total Production.	Total Value. (a)	Average Value per ton. (a)
	Tons.	Tons.	Tons.	£	s. d.
1938	253,065	54,193	307,258	188,101	12 3
1941	276,119	50,322	326,441	303,761	17 2
1942	270,754	42,100	312,854	411,107	24 7
1943	253,359	33,741	287,100	429,358	27 5
1944	224,313	33,379	257,692	407,793	29 3

(a) At the pit's mouth.

(b) *Brown Coal.—General.* Victoria is richly endowed, both in quantity and quality, with brown coal deposits. Some account of these deposits and of the operations of the State Electricity Commission in connexion therewith will be found in preceding

Official Year Books (see No. 22, p. 785). The brown coal produced in Victoria in 1943 amounted to 5,091,729 tons, all but 10,290 tons being procured at the State open cut at Yallourn. During 1943-44, 4,829,481 tons of brown coal were produced by the State Electricity Commission, of which 3,215,266 tons went to the power station and 1,614,215 tons to the briquette factory.

Production of Briquettes. The briquetting plant started operations in November, 1924, and the output, which in 1926 was 95,477 tons, had increased to 180,905 tons in 1930 and to 416,715 in 1943-44. Two and a half tons of brown coal are required to make one ton of briquettes.

(iii) *Queensland.* The distribution of production during 1938 and the four years 1941 to 1944 was as follows:—

COAL : PRODUCTION IN QUEENSLAND.

District.	1938.	1941.	1942.	1943.	1944.
	Tons.	Tons.	Tons.	Tons.	Tons.
Ipswich	547,901	689,680	751,177	755,660	802,269
Bowen	224,778	297,554	347,381	400,931	316,016
Clermont	88,407	110,409	142,607	147,179	145,237
Maryborough	77,162	114,190	127,975	136,541	128,606
Darling Downs	76,571	97,214	112,230	115,004	126,950
Rockhampton	64,174	105,308	119,673	107,332	108,043
Chillagoe (Mount Mulligan)	19,192	20,418	17,544	17,533	18,961
Mount Morgan	13,698	19,161	18,561	19,341	13,593
Mackay	1,543	..	..	..	..
Total	1,113,426	1,454,024	1,637,148	1,699,521	1,659,675

The production of 1,699,521 tons in 1943 represents the highest annual production to date, exceeding the previous peak output of 1,369,000 tons recorded in 1929.

(iv) *South Australia.* A new field of sub-bituminous coal has been opened up at Leigh Creek, South Australia. A small amount of 1,650 tons valued at £1,650 was recorded in 1942 as a result of preliminary boring activities. There was no production in 1943, but in 1944 34,620 tons were produced, valued at £12,117 which represents the cost of production.

(v) *Western Australia.* Details of the quantity of coal raised on the Collie coal-fields in Western Australia and the men employed are given in the table below for the years 1939 to 1944.

COAL : PRODUCTION AND EMPLOYMENT IN WESTERN AUSTRALIA.

Year.	Production.	Value.	Men employed.		
			Above ground.	Below ground.	Total.
	Tons.	£	No.	No.	No.
1939	557,535	362,811	155	597	752
1940	539,427	364,500	139	574	713
1941	556,574	389,278	143	638	781
1942	581,176	461,495	175	647	822
1943	531,546	489,721	188	650	838
1944	558,323	583,076	207	673	880

(vi) *Tasmania.* Details of the production of coal in Tasmania and the numbers employed are given in the following table for the years 1939 to 1944. The chief source of coal supplies in this State is the Cornwall Coal Mine situated on the east coast which produced 83,811 tons in 1944 or 57 per cent. of the State's output.

COAL : PRODUCTION AND EMPLOYMENT IN TASMANIA.

Year.	Production.	Value.	Men employed.
	Tons.	£	No.
1939	99,392	74,460	238
1940	83,136	63,688	239
1941	109,714	85,311	233
1942	134,442	108,241	243
1943	145,882	117,361	278
1944	143,641	122,673	277

(vii) *Australia's Coal Reserves.* The latest available estimate of the actual and probable coal reserves of Australia is based upon that prepared by the Coal and Lignites Panel of the Power Survey Sectional Committee of the Standards Association of Australia and issued in a report prepared in 1946. The following table shows the actual and probable coal reserves as determined by that Committee:—

ACTUAL AND PROBABLE COAL RESERVES OF AUSTRALIA.

(Millions of Tons.)

State.	Anthracitic and Bituminous Coals.	Sub-bituminous and Lignite Coals.
New South Wales	11,718	..
Victoria	33	37,000
Queensland	1,704	67
South Australia .. .. .	..	600
Western Australia .. .. .	..	800
Tasmania	244	..
Total	13,699	38,467

3. *Production in Various Countries.*—The total known coal production of the world in 1938 amounted to about 1,420 million tons, towards which Australia contributed about 15.4 million tons, or 1 per cent. The following tables show the production of the chief British and foreign countries during each of the four years ended 1938. Similar details for later years are not available:—

COAL : PRODUCTION IN BRITISH EMPIRE.

(Thousands of Tons.)

Year.	Great Britain.	British India.	Canada.	Australia.	New Zealand.	Union of S. Africa
BLACK COAL.						
1935 ..	222,249	23,017	9,193	10,888	825	13,360
1936 ..	228,448	22,611	10,146	11,370	859	14,607
1937 ..	240,409	25,036	10,840	12,074	970	15,246
1938 ..	227,015	28,343	9,623	11,680	978	16,027
BROWN COAL, LIGNITE.						
1935 ..	..	..	3,186	2,222	1,290	..
1936 ..	..	..	3,452	3,045	1,281	..
1937 ..	..	..	3,299	3,394	1,308	..
1938 ..	..	..	3,098	3,675	1,244	..

COAL : PRODUCTION IN FOREIGN COUNTRIES.

(Thousands of Tons.)

BLACK COAL.

Year.	Germany.	Austria.	Hungary.	Belgium.	France. (a)	Czecho- slovakia.	Yugoslavia.
1935 ..	140,744	247	810	26,087	46,363	10,791	394
1936 ..	155,783	241	814	27,427	44,512	12,040	434
1937 ..	181,599	227	903	29,213	43,618	16,513	432
1938 ..	183,238	222	(b)	29,106	45,763	13,300	(b)

Year.	Spain.	Poland.	Nether- lands.	U.S.S.R.	Japan.	China. (c)	U.S.A.
1935 ..	6,905	28,092	11,690	93 736	34,354	12,000	379,046
1936 ..	(d)	29,278	12,600	106,677	37,466	12,000	440,774
1937 ..	(d)	35,646	14,095	120,643	(d)	(d)	444,096
1938 ..	(d)	37,502	13,275	130,306	(d)	(d)	348,865

BROWN COAL, LIGNITE.

Year.	Germany.	Austria.	Hungary.	Belgium.	France.	Czecho- slovakia.	Yugoslavia.
1935 ..	145,028	2,924	6,612	..	885	14,977	3,971
1936 ..	153,848	2,851	6,993	..	905	15,697	3,971
1937 ..	182,106	3,191	7,928	..	1,000	17,613	4,523
1938 ..	191,899	3,477	9,212	..	1,040	12,900	5,651

Year.	Spain.	Poland.	Nether- lands.	U.S.S.R.	Japan.	China.	U.S.A.
1935 ..	299	18	85	13,602	(d)	..	(e)
1936 ..	(d)	13	87	17,333	(d)	..	(e)
1937 ..	(d)	19	141	(e)	(d)	..	(e)
1938 ..	(d)	9	168	(e)	(d)	..	(e)

(a) Excludes Saar District, which produced 11,139,000 tons in 1934, and 1,673,000 tons from 1st January to 17th February, 1935. From this date production has been included with that of Germany.
 (b) Included with brown coal. (c) Includes about 300,000 tons of lignite yearly. (d) Not available. (e) Included with black coal.

World production dropped from 1,510 million tons in 1937 to 1,420 million tons in 1938, largely as the result of the decline of nearly 100 million tons in the United States of America. The production of the British Empire amounted to 304 million tons in 1938, a decrease of 11 million tons or 3.5 per cent. on that of 1937. The production of foreign countries also decreased by 80 million tons to 1,120 million tons, or by 6.6 per cent. in the same period.

4. **Exports.**—(i) *General.* The quantity of coal of Australian production (excluding bunker coal) exported to other countries in 1943-44 was 157,741 tons, valued at £182,354, being from New South Wales. The quantities and values of the overseas exports of Australian coal for the years specified are shown in the following table :—

COAL : OVERSEA EXPORTS, AUSTRALIA.

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	Tons.	£		Tons.	£
1913 ..	2,098,505	1,121,505	1940-41 ..	330,103	331,532
1921-22 ..	1,028,767	1,099,899	1941-42 ..	241,004	259,093
1931-32 ..	344,015	341,800	1942-43 ..	254,043	296,533
1938-39 ..	382,085	347,054	1943-44 ..	157,741	182,354

Australian coal taken for bunker purposes during the same years was as follows :—

COAL : BUNKER, AUSTRALIA.

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	Tons.	£		Tons.	£
1913 ..	1,647,870	1,018,375	1940-41 ..	330,032	391,866
1921-22 ..	1,498,635	2,178,101	1941-42 ..	347,291	509,069
1931-32 ..	506,140	534,897	1942-43 ..	293,764	461,203
1938-39 ..	549,453	561,063	1943-44 ..	211,188	371,584

(ii) *New South Wales.* The distribution of the total output from New South Wales collieries during the years 1938-39 to 1944-45, according to data compiled by the Government Statistician for that State, was as follows.

COAL : DISTRIBUTION OF OUTPUT, NEW SOUTH WALES.

('000 tons.)

Exports.						
Year.	Interstate as—		Overseas as—		Local Consumption.	Total.
	Cargo.	Bunker.	Cargo.	Bunker.		
1938-39 ..	1,860	411	382	517	5,744	8,914
1939-40 ..	1,744	406	264	401	5,837	8,652
1940-41 ..	2,571	441	330	290	6,776	10,408
1941-42 ..	2,658	445	241	279	7,439	11,062
1942-43 ..	2,793	358	254	256	8,276	11,937
1943-44 ..	2,722	378	158	162	8,139	11,559
1944-45 ..	2,866	340	189	159	7,601	11,155

5. **Consumption in Australia.**—Details of the average annual production of coal and its distribution in Australia are given in the following table for the five years ended 1938-39 and 1943-44.

Under normal circumstances the production and consumption of coal move in the same direction, but in times of short supplies or abnormal consumption consumers may be compelled to rely upon accumulated stocks, and, consequently, annual figures may move out of alignment. For this reason the following table has been prepared on a five-yearly basis in order to smooth out any variations from the normal.

COAL : PRODUCTION AND UTILIZATION IN AUSTRALIA.

Particulars.	Average for Five Years ended—				
	1938-39.		1943-44.		
BLACK COAL.					
Source—		Tons.	%	Tons.	%
Production of Saleable Coal (a)	..	11,168,996	99.72	13,484,578	99.95
Imports	30,860	0.28	6,137	0.05
Total Supplies	11,199,856	..	13,490,715	..
Disposal—					
Exported overseas—Bunker	592,469	5.29	324,016	2.40
" " other	345,606	3.09	249,508	1.85
Total	938,075	8.38	573,524	4.25
Consumed as fuel in—					
Electric Light and Power Works	1,795,568	16.03	2,288,572	16.96
Factories (b)	2,067,462	18.46	2,501,942	18.55
Railway Locomotives (c)	2,327,791	20.78	2,935,252	21.76
Total	6,190,821	55.27	7,725,766	57.27
Consumed as raw material in—					
Gas Works	1,110,801	9.92	1,319,282	9.78
Coke Works	1,467,459	13.10	2,251,892	16.69
Total	2,578,260	23.02	3,571,174	26.47
Balance available for consumption including accumulation of stocks (d)	1,492,700	13.33	1,620,251	12.01
Grand Total	11,199,856	100.00	13,490,715	100.00

BROWN COAL.

Production of Brown Coal	Tons. 3,063,879		Tons. 4,588,075	
Utilization—				
As fuel in Electric Light and Power Works	1,673,018	% 54.60	2,958,204	% 64.48
Used in Briquette Works (e)	1,390,861	45.40	1,629,871	35.52
Total	3,063,879	100.00	4,588,075	100.00

(a) Estimated. (b) Estimated where details were not available. Excludes brown coal, see note (e). (c) Government Railways only. (d) Includes bunker coal for interstate and intra-state shipping. (e) A portion of the briquette output is consumed in factories.

The production of coal is ascertained only in calendar years and to relate it to the other data in the table above it has been necessary to estimate the output of black coal in annual periods ended June. Checks applied from other official sources confirm the reliability of these estimates.

6. Prices.—(i) *New South Wales*. The price of New South Wales coal depends on the district from which it is mined. Previously the Northern district coal generally realized a somewhat higher price than the Southern, but the average price in the Southern district is now in excess of that prevailing in the Northern. According to the figures compiled by the State Statistician the average prices of saleable coal for the various districts and for the State as a whole during the six years 1938 to 1943 are given in the following table:—

COAL PRICES : NEW SOUTH WALES.

Year.	Northern District.		Southern District.		Western District.	Average for State.		
	Per ton.		Per ton.		Per ton.	Per ton.		
	s.	d.	s.	d.	s.	d.		
1938	11	11	14	0	9	6	12	0
1939	12	8	14	5	10	8	12	9
1940	13	6	15	0	11	6	13	6
1941	14	7	15	6	12	0	14	4
1942	15	11	17	9	14	3	16	0
1943	15	11	17	11	14	5	16	1

(ii) *Victoria*. In Victoria the average price of black coal per ton at the pit's mouth, which is largely determined on the landed cost of New South Wales coal seaborne to Melbourne, was in 1938, 12s. 3d.; in 1939, 12s. 10d.; in 1940, 15s. 3d.; in 1941, 17s. 2d.; in 1942, 24s. 7d.; in 1943, 27s. 5d and 29s. 3d in 1944. These averages exclude brown coal, which in 1943 cost 2s. 1d. per ton to produce.

(iii) *Queensland*. Prices in the principal coal-producing districts during 1938 and the four years ended 1943 were as follows:—

COAL PRICES : QUEENSLAND.

Value at Pit's Mouth.

District.	1938.	1940.	1941.	1942.	1943.
	Per ton. s. d.	Per ton. s. d.	Per ton. s. d.	Per ton. s. d.	Per ton. s. d.
Ipswich	17 0	17 5	18 11	20 5	21 0
Darling Downs	19 11	20 6	21 9	23 2	24 7
Wide Bay and Maryborough	24 0	25 0	26 0	27 11	28 8
Rockhampton	17 0	18 0	19 8	20 4	20 2
Marmont	13 8	13 7	14 7	16 4	16 8
Bowen	14 10	16 7	17 11	19 8	20 7
Chillagoe (Mount Mulligan)	31 6	29 10	33 3	33 10	34 1
Average for State ..	17 2	17 11	19 4	20 9	21 6

(iv) *South Australia*. The value of the 1944 production was 7s. per ton, which represents the cost of production.

(v) *Western Australia*. The average prices per ton of the Collie (Western Australia) coal during the six years ended 1943 were: 1938, 12s. 5d.; 1939, 13s. 0d.; 1940, 13s. 6d.; 1941, 14s. 0d.; 1942, 15s. 10½d.; and 1943, 18s. 5d.

(vi) *Tasmania*. The average prices per ton of coal at the pit's mouth in Tasmania for the six years ended 1943 were: 1938, 14s. 10d.; 1939, 15s. 0d.; 1940, 15s. 4d.; 1941, 15s. 7d.; 1942, 16s. 1d.; and 1943, 16s. 1d.

7. **Prices in Great Britain.**—The average selling prices of coal per ton at the pit's mouth in Great Britain since 1938 were as follows:—1939, 17s. 1d.; 1940, 19s. 6d.; 1941, 22s. 11d.; 1942, 24s. 1d.; 1943, 27s. 2½d.; 1944, 31s. 2½d.; and 1945, 35s. 0d.

8. **Employment in Coal-mines.**—The number of persons employed in coal-mines, both above and below ground, in each of the producing States is given for selected years from 1913 and for each of the six years ended 1944:—

COAL-MINES : PERSONS EMPLOYED.

Year.	New South Wales.	Victoria.		Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
		Black.	Brown.					
	No.	No.	No.	No.	No.	No.	No.	No.
1914	19,758	1,405	(a)	2,227	..	525	152	24,067
1924	23,024	1,916	373	2,828	..	673	291	29,105
1934	13,465	1,502	319	2,385	..	624	358	18,653
1938	15,815	1,322	444	2,495	..	765	269	21,110
1939	16,581	1,376	449	2,615	..	752	238	22,011
1940	17,337	1,374	378	2,660	..	713	239	22,701
1941	17,351	1,295	620	2,886	..	781	233	23,166
1942	17,101	1,234	620	2,838	12	822	243	22,870
1943	17,497	1,203	630	2,898	..	838	278	23,344
1944	17,468	1,196	613	2,978	91	880	277	23,593

(a) Production prior to 1924 was of little importance.

The maximum number employed was in 1926 when 31,774 persons were engaged in the coal-mines of Australia. Shortly after that year the industrial depression and a prolonged stoppage of work on one of the principal fields of New South Wales during 1929 and 1930 seriously affected the figures of employment. Since 1933 there has been a gradual increase, but the numbers employed in 1944 were only about three-quarters of the maximum figure already quoted. In New South Wales 3,594,000 tons of coal, or 32.1 per cent. of the total output in 1939, was cut by machinery compared with 5,005,011 tons or 40.9 per cent. in 1942, 4,417,912 tons or 38.3 per cent. in 1943, and 4,099,230 tons or 36.9 per cent. in 1944. Similar details for other States are not available.

9. **Accidents in Coal-mining.**—(i) *Australia.* The following table gives the number of persons killed or injured in 1943, with the proportion per 1,000 employed, and in relation of the quantity of coal raised, a factor which must be reckoned with in any consideration of the degree of risk attending mining operations. Although no precise definition of an accident is available, any disablement from misadventure which rendered the injured unfit for work for fourteen days or more appears to have been uniformly adopted by the State Departments of Mines.

COAL-MINING : EMPLOYMENT AND ACCIDENTS, 1943.

State.	Persons Employed in Coal-mining.	No. of Persons.		Proportion per 1,000 Employed.		Tons of Coal raised for each Person.	
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
New South Wales ..	17,497	19	90	1.09	5.14	606,784	128,099
Victoria (a) ..	1,833	1	12	0.55	6.55	5,378,829	448,236
Queensland ..	2,898	2	193	0.69	66.60	849,760	8,806
Western Australia ..	838	1	291	1.19	347.25	531,546	1,826
Tasmania ..	278	2	4	7.19	14.37	72,941	36,471
Total ..	23,344	25	590	1.07	2.53	771,387	32,686

(a) Includes brown coal.

The next table shows the average number employed in mining, number of fatalities, and rate per 1,000 employed during the five-yearly period 1939-1943:—

COAL-MINING : FATALITIES, 1939 TO 1943.

State.	Average No. of Coal-miners Employed.	Average No. of Fatal Accidents.	Rate per 1,000 Employed.
New South Wales	17,173	20.60	1.20
Victoria	1,836	1.20	0.65
Queensland	2,779	3.00	1.08
Western Australia	781	1.80	2.30
Tasmania	246	0.40	1.63
Total	22,815	27.00	1.18

(ii) *Other Countries.* According to the report of the Chief Inspector of Mines, the average death rate per 1,000 miners from accidents in coal-mines in Great Britain during the five-yearly period 1933-37 was 1.11, the rates varying between 1.35 in 1934 and 1.02 in 1936, while the rate for Australia for the same period was 1.14. Details are not available for a later comparison.

10. *Commonwealth Board of Inquiry into the Coal-mining Industry.*—In January, 1945 a Commonwealth Board of Inquiry consisting of three members was constituted under National Security (Inquiries) Regulations to inquire into and report upon the coal mining industry of Australia. The terms of reference included, amongst other things, such matters as production of coal, absenteeism, causes of stoppages, health and safety of employees, housing, pension schemes, etc. The Chairman of the Board was the Hon. Mr. Justice Davidson, of the Supreme Court of New South Wales.

On the 4th March, 1946, the instrument appointing the Board of Inquiry was revoked and the former Chairman was appointed a sole Commissioner to present a report upon the information, evidence and material already before the former Board. A report in two volumes was presented in March, 1946.

11. *Joint Coal Board.*—In August and September, 1946, a joint Commonwealth and State authority to re-organize and rehabilitate the coal industry of New South Wales was established by law.

§ 10. Coke.

1. *General.*—Notwithstanding the large deposits of excellent coal in Australia, the production of coke was limited to about 250,000 ton prior to the 1914-19 War. This was below local requirements and necessitated a fairly considerable import from abroad. During recent years, however, a high standard has been attained in the local product, imports have almost ceased, and Australian coke is being shipped to New Zealand and other islands in the Pacific. In 1943-44 the quantity exported was 31,078 tons, valued at £75,498, of which £27,774 tons, valued at £61,473, were sent to New Caledonia.

2. *New South Wales.*—The following table gives the production in New South Wales during 1938 and each of the four years 1940 to 1943 as recorded by the Department of Mines:—

COKE : PRODUCTION IN NEW SOUTH WALES.

Items.	1938.	1940.	1941.	1942.	1943.
Quantity .. tons	1,135,446	1,272,067	1,711,396	1,618,913	1,567,172
Value, total .. £	1,100,266	1,078,411	2,134,022	2,181,623	2,400,993
Value, per ton	19s. 5d.	16s. 11d.	£1 4s. 11d.	£1 6s. 11d.	£1 10s. 8d.

The figures quoted refer to the product of coke ovens, and exclude coke produced in the ordinary way at gas-works.

3. *Queensland*.—A small quantity of coke is made in Queensland, the quantity returned in 1938 being 30,984 tons, of which 27,328 tons were produced at the Bowen State Coke Works. The greater proportion of the output of these works was consigned to the Mount Isa Mines Ltd. and to the Chillagoe State smelters. Hitherto the coke used at these ore-treatment works was imported from New South Wales, but now the local output is sufficient to meet the requirements of the State and leave a small surplus available for export. The following table shows the amount manufactured at the State Coke Works during the six years ended 1943-44.

COKE : PRODUCTION IN STATE COKE WORKS—QUEENSLAND.

Year.	1938-39.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.
Quantity .. tons	26,032	19,897	25,213	19,448	18,701	9,347

In order to avoid duplication with coal values, the returns for coke have not been included in the general tables of mineral production in the early part of this chapter.

§ 11. Shale-oil and Mineral Oil.

1. *Shale-oil*.—(i) *General*. Reference to the deposits of shale and the search for mineral oil in Australia will be found in Official Year Book No. 22, pp. 791-3.

(ii) *New South Wales*. Reference to the establishment of the shale-oil industry in Australia will be found in previous issues of the Official Year Book. In 1937 negotiations were completed between the Commonwealth and New South Wales Governments and the National Oil Proprietary Ltd., by which the latter company undertook to develop the shale-oil industry in the Newnes-Capertee district. The Commonwealth Government agreed to protect the industry by exempting from excise, up to 10 million gallons annually, the Company's output of petrol for a period of 25 years. The successful establishment of this plant will probably lead to an expansion of the industry in Australia and should provide a valuable training ground for technicians. Production commenced in 1940, and the following table shows the production of shale oil during 1940 to 1944 :—

SHALE OIL : PRODUCTION IN NEW SOUTH WALES.

Year.	Northern District.		Southern District.		Western District.		Total.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Tons.	£	Tons.	£	Tons.	£	Tons.	£
1940 .. ..	..	..	..	..	43,805	43,805	43,805	43,805
1941 .. ..	..	..	820	540	122,758	96,131	123,578	96,671
1942	828	1,881	1,559	1,898	114,937	138,564	117,324	142,343
1943	4,033	6,377	..	..	112,842	153,838	116,875	160,215
1944	3,047	8,827	..	..	134,411	156,458	137,458	165,285

(iii) *Tasmania*. About 38,000 gallons of crude oil were produced in 1934 from shale treated in Tasmania, while the total quantity of oil distilled from shale up to the end of 1934 was set down at 357,000 gallons. The plant owned by the Tasmanite Shale Oil Company has not operated since the end of January, 1935.

Interest in the commercial utilization of oil shales of the Mersey Valley for the extraction of fuel oils has been retarded due to structural and physical conditions for underground mining and the low-grade nature of the shale.

2. *Coal Oil*.—Attention has been directed to the production of oil from coal by a number of processes. A committee appointed by the Commonwealth Government which consisted of nominees of the Commonwealth and State Governments, exception

Western Australia, and of Imperial Chemical Industries Ltd., was appointed to advise on specific questions submitted to it. In a report submitted in June, 1937, it was stated that the stage had not been reached when Australia could establish plants for the production of oil from coal. The committee recommended, however, that close touch be kept with developments abroad. A report, dated 25th July, 1939, on the production of oil from coal was submitted to the Commonwealth Minister for Supply and Development by the Standing Committee on Liquid Fuels. The recommendations of this Committee followed the lines of those of its predecessors.

3. *Natural Oil.*—(i) *Australia.* Natural oil has been proved to exist in Queensland, Victoria and Western Australia, the best indications being found in Victoria and Queensland. Many of the conditions favourable to the accumulation of oil in commercial quantities have been shown to be present in Queensland, Western Australia and New South Wales. In the latter State, however, no strong positive evidence of its existence has been recorded. Oil has been proved to occur in noteworthy quantities at Lakes Entrance, Victoria, but it still remains to be demonstrated whether the area can be developed on a commercial basis.

Reference is made in § 15 below to the assistance afforded by the Commonwealth Government in the search for petroleum oil.

(ii) *Victoria.* There was no production of crude petroleum oil in 1943. The total production to the end of 1942 amounted to 115,283 gallons, valued at £2,769. In conjunction with the State Government, the Commonwealth Government carried out a scout-drilling campaign in the Gippsland area, but this was subsequently abandoned.

(iii) *Queensland.* Great hopes are still entertained in regard to the petroliferous area in Queensland. Gas and light to medium gravity oils have been found at Roma, and gas and oily wax at Longreach. Structural conditions favourable to accumulation on a commercial scale have been located at several places between Injune and Springsure. The search for oil was continued during 1939 by several companies in localities situated at Mount Bassett, near Roma, at Hutton Creek and at Arcadia. Test bores have been drilled to bed rock in all the localities mentioned, the deepest being that at Arcadia which exceeded 6,000 feet. Showings of petroliferous gas, amounting at Arcadia to 3,000,000 cubic feet a day, and of petroleum have been encountered in all these boreholes.

(iv) *South Australia.* Under prescribed conditions, the South Australian Government offers a bonus of £5,000 to the person or body corporate which first obtains from a local bore or well 100,000 gallons of crude petroleum containing not less than 90 per cent. of products obtainable by distillation.

(v) *Western Australia.* Only one company was active in Western Australia during 1939. The company, financially assisted by the Commonwealth and State Governments, commenced deep-drilling operations in the Kimberley district in 1939. No production has been recorded up to the end of 1943.

(vi) *General.* During 1939 efforts were made to secure greater uniformity in State legislation governing the search for oil. A draft Bill based on modern legislation in other countries was prepared by the Commonwealth and submitted to the State Governments. As a result amending legislation was passed in Victoria, Queensland, South Australia and Western Australia. There was immediate response to this in Queensland, where an agreement has been reached between the State Government and one of the major oil companies, whereby the company has undertaken to spend up to £400,000 in the search for oil in that State.

§ 12. Other Non-metallic Minerals.

A more or less detailed statement regarding the occurrence and production of other non-metallic minerals is given in preceding issues of the Official Year Book (see No. 22, pp. 793-6). The tables of quantities and values in § 1 of this Chapter will show the production of the principal items in this class for each State during 1943.

§ 13. Gems and Gemstones.

1. **Diamonds.**—It is difficult to secure accurate returns in connexion with the production of precious stones, but the yield of diamonds in 1943 in New South Wales was estimated at 429 carats, valued at £900. These were won by fossickers in the Inverell district. The total production to the end of 1943 is given at 206,558 carats, valued at £149,900.

2. **Sapphires.**—The production of sapphires in New South Wales during 1929 was returned as 65 oz., valued at £450, obtained wholly at Sapphire in the Inverell district, and the only output recorded since that year was 1,200 oz., valued at £600, in 1941, and 248 oz., valued at £124, in 1943. Production during recent years has been restricted owing to the unfavourable market.

In Queensland, gems to the value of £2,350 were purchased on the Anakie sapphire fields in 1943. It is probable that many were sold privately or held for better prices. For these reasons the returns are considered to be very incomplete. There were about 120 miners operating on the fields during 1934 but their number decreased to 7 in 1943. Production has declined very considerably since 1920, when the yield was valued at £66,000.

3. **Precious Opal.**—The estimated value of the opal won in New South Wales during 1943 was £2,288. This is not regarded as the total output of the State, however, because in many instances miners, buyers and collectors leave the fields before a record of their production or purchases can be secured. Some very fine stones are at times obtained, one weighing 5 ozs. and valued at £300 being found in 1911. Three finds of large stone were made in 1928, the gems weighing 790, 590 and 232 carats respectively and showing fine fire and lustre. Occasionally black opals of very fine quality are found, one specimen from the Wallangulla field, weighing 6½ carats, being sold in 1910 for £102, while in the early part of 1920 a specimen realized £600. It is stated that this locality is the only place in the world where the "black" variety of the gem has been found. The total value of opal won in New South Wales since 1890 is estimated at £1,632,956, but, as pointed out above, the figures are to some extent understated.

In Victoria small quantities of precious opal are found in the Beechworth district.

The opaliferous district in Queensland stretches over a considerable area of the western interior of the State, from Kynuna and Opalton as far south as Cunnamulla. The yield in 1939 was estimated at £50, and up to the end of that year at about £188,000. No production has been recorded since 1939. These figures are, however, merely approximations, as large quantities of opal, of which no record is obtained, are disposed of privately. Production during recent years has been limited by the paucity of demand. Only seven men operated during 1939. The greatest recorded output was for the year 1895 when the yield was valued at £32,750.

Owing to the poor market for gems, production from the Coober Pedy opal field, situated in the Stuart Range in South Australia, fell from £11,056 in 1929 to £1,517 in 1934. The production rose in 1937 to £11,887, but declined to £6,020 in 1939, and rose again to £11,568 in 1941. After a further drop in 1942, production in 1943 was valued at £13,881. The field is extremely prolific, a large quantity of precious white opal having been raised therefrom, and only a small portion of the known opal-bearing area has been thoroughly tested. The greatest yield for the State in any one year was obtained in 1920 when the value of production was returned at £24,000.

4. **Other Gems.**—Various other gems and precious stones have from time to time been discovered in the different States, the list including agates, amethysts, beryls, chialtolite, emeralds, garnets, moonstones, olivines, rubies, topazes, tourmalines, turquoises and zircons. In Western Australia, 600 carats (rough) of emeralds, valued at £278, were produced during 1929 in the Cue district on the Murchison gold-field. The value of the 3,750 carats reported from the same area in 1930 was not ascertainable as there were no sales during the year. There has been no recorded production since 1930.

During the three years 1939, 1940 and 1941, 10 tons of beryl, valued at £83, were produced in Western Australia. There was no production in 1942, but during 1943 548 tons, valued at £16,009, were produced. Beryl is required chiefly for special alloys with copper which are used in the manufacture of castings, non-sparking tools and special diamond-drill bits.

4. Number Engaged, Wages Paid and Accidents in Mining.

1. Total Employment in Mining.—The number of persons engaged in the mining industry in Australia fluctuates according to the season, the price of industrial metals, the state of the labour markets, and according to the permanence of new finds and the development of the established mines. During 1943 the number so engaged was as follows:—

NUMBER OF PERSONS ENGAGED IN MINING, 1943.

State.	Number of Persons engaged in Mining for—						Total.
	Gold.	Silver, Lead and Zinc.	Copper.	Tin.	Coal.	Other.	
New South Wales ..	771	3,982	260	1,175	17,497	1,873	25,558
Victoria ..	719	..	..	4	1,833	245	2,801
Queensland ..	1,297	239	864	599	2,898	339	6,236
South Australia ..	29	..	36	2	..	817	884
Western Australia ..	5,079	2	1	7	838	300	6,227
Tasmania ..	19	491	1,577	847	278	249	3,461
Northern Territory ..	40	..	1	45	..	773	859
Australia ..	7,954	4,714	2,739	2,679	23,344	4,596	46,026

Included in the figures for "other" in South Australia were 206 engaged in mining iron ore, 33 gypsum miners, 291 salt gatherers, and 32 opal miners. The Tasmanian figures include 105 scheelite miners and 23 osmiridium miners. Northern Territory figures include 590 wolfram and 180 mica miners.

The following table shows, at intervals since 1911, the number of persons engaged in mining in each State and the proportion so engaged of the total population:—

NUMBER ENGAGED IN MINING PER 100,000 OF POPULATION

State.	1911.		1921.		1931.	
	Miners engaged.	No. per 100,000 of Population.	Miners engaged.	No. per 100,000 of Population.	Miners engaged.	No. per 100,000 of Population.
New South Wales ..	37,017	2,225	29,701	1,410	30,682	1,200
Victoria ..	15,986	1,210	5,211	339	6,463	359
Queensland ..	13,201	2,147	5,847	766	6,753	730
South Australia ..	6,000	1,457	2,020	406	518	90
Western Australia ..	16,596	5,787	7,084	2,122	7,147	1,653
Tasmania ..	5,247	2,760	3,170	1,486	3,397	1,512
Northern Territory ..	715	21,595	131	3,356	145	2,918
Australia ..	94,762	2,109	53,164	974	55,105	844

NUMBER ENGAGED, WAGES PAID AND ACCIDENTS IN MINING. 1007

NUMBER ENGAGED IN MINING PER 100,000 OF POPULATION—continued.

State.	1941.		1942.		1943.	
	Miners engaged.	No. per 100,000 of Population.	Miners engaged.	No. per 100,000 of Population.	Miners engaged.	No. per 100,000 of Population.
New South Wales	27,554	987	26,076	925	25,558	894
Victoria	4,839	250	3,655	186	2,801	141
Queensland	6,541	631	5,780	557	6,236	597
South Australia	928	154	932	153	884	144
Western Australia	14,021	2,959	9,100	1,901	6,227	1,330
Tasmania	2,974	1,248	3,397	1,411	3,461	1,430
Northern Territory	424	6,756	961	19,652	859	8,752
Australia	57,281	807	49,901	697	46,026	636

The general falling-off since 1911 is largely due to the causes mentioned in each section above. The proportion to population increased between 1931 and 1939 in all States, excepting New South Wales and Tasmania, owing mainly to the larger number engaged in the search for gold. Between those years the increase in the number so engaged was approximately 5,000 persons. The number engaged in mining for tin increased by 1,000, while increases of 2,600 were also recorded in the mining for silver, lead and zinc. The number of copper-miners decreased by 500 over the same period. Since 1939 the number engaged in mining, and the proportion to population have decreased in all States except Tasmania and in the Northern Territory due mainly to heavy war-time demands upon man-power.

2. Wages Paid in Mining.—Information regarding rates of wages paid in the mining industry, which in earlier issues of the Official Year Book was given in this chapter, is now shown in the *Labour Report* issued by this Bureau.

3. Accidents in Mining, 1943.—The following table gives particulars of the number of men killed or injured in mining accidents during 1943:—

MINING ACCIDENTS, 1943.

Mining for—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Australia.
KILLED.								
Coal ..	19	1	2	..	1	2	..	25
Copper ..	..	..	..	..	..	1	..	1
Gold ..	1	4	..	..	12	..	..	17
Iron ..	..	..	..	..	..	..	..	..
Silver, lead and zinc ..	3	..	1	..	1	..	..	5
Tin ..	..	..	..	..	..	..	..	..
Other minerals (a) 11	(a) 2	4	..	1	..	..	..	18
Total ..	34	7	7	..	15	3	..	66

(a) Includes quarries.

MINING ACCIDENTS, 1943—continued.

Mining for—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Australia.
INJURED.								
Coal ..	90	12	193	..	291	4	..	590
Copper ..	..	..	18	..	..	12	..	30
Gold ..	2	4	6	..	635	..	..	647
Iron ..	..	..	..	34	..	..	..	34
Silver, lead and zinc ..	108	..	5	..	..	12	..	125
Tin ..	..	..	..	..	..	6	..	6
Other minerals	(a) 17	(a) 1	49	11	..	3	2	83
Total ..	217	17	271	45	926	37	2	1,515

(a) Includes quarries.

§ 15. Government Aid to Mining.

1. *Commonwealth.*—(i) *General.* Assistance to mining has been given by the Commonwealth under the provisions of the Precious Metals Prospecting Act 1926, the Gold Bounty Act 1930, the Petroleum Oil Search Acts 1936, which superseded the Petroleum Prospecting Acts 1926, 1927 and 1928, the Loan Appropriation (Unemployment Relief) Act 1934, the Northern Australia Survey Act 1934 and the Gold Mining Encouragement Act 1940.

The last-mentioned Act provided financial assistance to the States for the development of the gold-mining industry. The amount granted was £150,000, distributed as follows:—New South Wales, £8,000; Victoria and Queensland, £14,000 each; South Australia, £1,000; Western Australia, £111,000; and Tasmania, £2,000. The Act provided further for assistance to bona fide prospectors, marginal producers and low grade mines by refunds, under certain conditions, of the tax on gold.

Expenditure under the other Acts mentioned has been reviewed in previous issues of the Official Year Book. Further expenditure under the Gold Mining Encouragement and the Petroleum Oil Search Acts, with the exception of the assistance to prospectors, etc., is not contemplated, as an entirely new scheme of financial assistance to the mining industry generally has recently been instituted.

The Commonwealth Government has recently decided to provide substantial funds, both for the immediate rehabilitation of the mining industry and for development of mining projects generally, which offer promise of contributing materially to the national development, employment and the economic welfare of the Commonwealth. Applications for financial assistance under the new arrangements are presented to the Mines Department of the State concerned and projects recommended for assistance by the States are considered by the newly created Bureau of Mineral Resources, Geology and Geophysics. The report and recommendation of the Bureau are considered by the Commonwealth Mining Industry Committee which consists of representatives of the Departments of Supply and Shipping, the Treasury and Post-war Reconstruction, under the Chairmanship of the permanent head of the Department of Supply and Shipping. This Committee's recommendations are presented for the consideration of the Minister for Supply and Shipping and the Treasurer.

Recently also an Australian Mining Council has been created, consisting of the Commonwealth and State Ministers whose Departments are concerned with the mining industry. This body deals with problems of national importance and functions in relation to mining in the same way as the Agricultural Council functions in regard to agriculture.

(ii) *Survey of North Australia.* Reference to this aerial geological and geophysical survey in which the Commonwealth, Queensland and Western Australian Governments co-operated, and which was completed at the end of 1940, appears in Official Year Book No. 35, page 744.

(iii) *Search for Oil.* The Commonwealth Government has encouraged the search for oil in Australia, Papua and New Guinea, and considerable sums have been spent during recent years in geological surveys and in drilling operations. Details of efforts made during that period are shown in previous issues of the Official Year Book.

In 1936 the Petroleum Oil Search Act was passed and replaced all previous enactments. A considerable amount of geological work and test drilling was conducted under this scheme, and at the outbreak of the 1939-45 War two tests were partially completed, one at Oiapu in the Gulf district of Papua and one at Nerrima in the Kimberley district of Western Australia. It is proposed to complete these tests.

During the war, in co-operation with the Government of Victoria, an attempt was made to develop the oil sands of the Lakes Entrance district by sinking a vertical shaft and drilling horizontal holes therefrom. This project had not been completed when the war ended, and it was abandoned by the Governments, but a private company proposes to continue it.

A radical change in policy with regard to the search for petroleum throughout Australia and its Territories has also been made. It has been decided that the policy of granting financial assistance to relatively small companies has proved ineffective and that the Commonwealth contribution to the search for oil should take the form of a considerably intensified effort in carrying out geological and geophysical surveys. This work also will be a function of the Bureau of Mineral Resources, Geology and Geophysics working in close co-operation with the Mines Departments of the States. In this connexion co-operative agreements have already been concluded for extensive surveys to be made in the Kimberley and North-West Divisions of Western Australia.

The Bureau has also assumed full responsibility for geological and geophysical surveys in Commonwealth Territories, but suitable arrangements have been made to ensure that the local Administrations have the necessary technical advice directly available to them.

(iv) *Mineragraphic Investigations, etc.* In addition to the assistance mentioned above the Commonwealth Government made a grant of £25,000 in 1934 to the Council for Scientific and Industrial Research to stimulate gold production by conducting mineragraphic and ore-dressing investigations as required by the industry. This amount was expended during the succeeding five years in conducting these investigations, which were carried out conjointly with appropriate State institutions, the three laboratory centres being the School of Mines, Kalgoorlie, the School of Mines and Industries, Adelaide, and the University of Melbourne.

The success of the scheme induced a further grant of £22,000. After providing £2,000 for 1940-41, the balance is to be expended at the rate of £4,000 during each of the succeeding five years. The scheme is administered by a Mining Advisory Committee.

(v) *Standing Committee on Liquid Fuels.* The Commonwealth Government has appointed a Standing Committee on Liquid Fuels to co-ordinate knowledge concerning the production of liquid fuels and the use of substitutes therefor, and to furnish information which will enable Australia to obtain greater independence in regard to fuel supplies. This Committee has undertaken the investigation of such matters as the production of oil from coal, benzol, power alcohol, shale-oil, the use of producer and compressed gas in road vehicles, and tar and other substitutes for fuel oil. Seven reports have been issued by this Committee to date.

(vi) *Minerals Committee and Controller of Minerals Production.* During 1941 a Minerals Committee was formed, comprising representatives of the Commonwealth and State Governments and of the mining industry, to advise the Commonwealth on plans necessary to obtain minerals and metals required for war purposes. As a result of recommendations made by the Committee, the National Security (Minerals) Regulations were brought down providing for the appointment of a Controller of Minerals Production

whose powers were, broadly, to operate, control and direct the production and supply of minerals. Legislation is now being enacted to provide for the continuation of powers prescribed by the National Security (Minerals) Regulations to enable various projects which were initiated by the Controller of Minerals Production to be continued.

(vii) *Mining Industry Advisory Panel.* The Mining Industry Advisory Panel was set up under the Secondary Industries Commission in 1944 to assist the Commonwealth Government in determining its post-war mining policy. The Panel consists of representatives of the Commonwealth and the States and of the mining industry. The new policy adopted by the Commonwealth with regard to financial assistance to mining has been adopted following recommendations submitted by the Panel through the Secondary Industries Commission. The taxation concessions which have been made to the industry have also resulted from the Panel's recommendations.

2. *States.*—(i) *General.* In addition to free assays and determinations of rocks and minerals carried out for prospectors by the Mines Departments of the States and Territories, technical officers of these departments provide advice to the mining industry where required, carry out field examinations of mining prospects, advise on exploration and development, select sites for water supply, and in general give a free technical service to the mining industry.

(ii) *New South Wales.* State aid to metalliferous mining during 1943 amounted to £4,480, which was expended mainly in tin and wolfram mining. During 1944 aid totalled £4,811, assistance to prospectors amounted to £2,111 and advances to mines for purchase of machinery, plant, etc., to £2,700.

(iii) *Victoria.* In 1943 £4,000 was granted to aid the mining industry by the State of Victoria. Of this amount £3,000 was for gold and the balance for other minerals.

In addition to funds provided by the Commonwealth, the Victorian Government contributed £55,085 of the total sums expended on joint projects conducted by the Commonwealth and Victorian Governments for the search for oil at Lakes Entrance and Nelson, £37,000 being advanced towards the sinking of a circular concrete shaft at Lakes Entrance and £17,585 for boring at Nelson.

Advances totalling £2,100 were made during 1944 to private coal-mining companies.

(iv) *Queensland.* Mining operations conducted by the State include three coal-mines situated at Bowen, Styx and Mount Mulligan, batteries at Kidston and Bamford, an assay office at Cloncurry, coke-works at Bowen and the State treatment works at Irvinebank. The Chillagoe State Smelters closed down in July, 1943, and arrangements were made for copper ores to be treated at Mount Isa by Mount Isa Mines Limited.

(v) *South Australia.* During 1940 the Premier announced that assistance would be given to copper mining in the form of financial help towards such development work as was absolutely necessary for the mine to enter upon reasonably continuous production.

The Commonwealth Government in 1940 made available £1,000 for distribution among gold producers in South Australia. Under the Gold Mining Encouragement Act 1940 provision was made for the refund of the gold tax to bona fide prospectors.

On 5th November, 1942, the Leigh Creek Coal Act was passed to develop the Leigh Creek Coalfield. As a result of extensive drilling operations, development of open-cut mining was commenced in January, 1943. To 14th November, 1944 £260,000 had been expended on the project. Production from the open cut to December, 1944 amounted to 34,620 tons.

The State maintains batteries and cyanide works at Mount Torrens, Peterborough, Mongolata, Tarcoola and Glenloth, and assays for public purposes are made at the School of Mines.

(vi) *Western Australia.* Under the Mining Development Act of 1902, the following sums were advanced during 1943 (figures in parentheses) and 1944:—

In aid of mining work and equipment of mines with machinery, £7,135 (£3,432); subsidies on stone crushed for the public, £1,571 (£105); assistance to prospectors, £1,511 (£2,266); other assistance, £336 (£437); total, £9,553 (£6,240).

(vii) *Tasmania*. Assistance to mining under the Aid to Mining Act of 1927 for the development of mines and for prospecting amounted to £635 in 1943, and £813 in 1944. Government drilling operations involved an expenditure in 1943 of £3,193, of which £658 was repaid, and in 1944 of £3,131, of which £644 was repaid.

(viii) *Northern Territory*. The Commonwealth Government was responsible for the advancing of considerable sums of money for the development of wolfram and mica fields in Central Australia during the war. Commonwealth activities, with the provision of roads and water supply and the introduction of mechanical mining equipment, have resulted in a great improvement in conditions on the mica fields.

§ 16. Metallic Contents of Ores and Concentrates Produced.

According to returns compiled by the Australian Mines and Metals Association from records supplied by companies associated with mineral production and by State Departments of Mines, the metallic contents (excluding gold) of ores and concentrates produced in Australia during the years 1939 to 1944 were as follows :—

METALLIC CONTENTS OF ORES AND CONCENTRATES PRODUCED IN AUSTRALIA.

Metal.		1939.	1940.	1941.	1942.	1943.	1944.
Silver	oz.	15,320,116	15,871,976	15,412,581	14,241,811	10,329,830	9,365,726
Lead Pig	tons	280,003	287,729	289,436	263,183	206,376	189,485
Zinc	"	229,846	245,758	249,105	221,654	182,900	174,308
Copper	"	20,560	13,720	20,859	20,402	24,326	(a) 28,025
Tin	"	3,067	3,501	3,494	2,931	2,635	(a) 2,540

(a) Excludes Northern Territory.

The production of pig iron in New South Wales amounted in 1938-39 to 1,104,605 tons; in 1941-42 to 1,557,641 tons; in 1942-43 to 1,399,306 tons, and in 1943-44 to 1,305,357 tons.

CHAPTER XXVII.

DEFENCE.

§ 1. Military Defence.

1. **State Systems.**—A detailed historical account of the Australian defence forces prior to Federation will be found in Official Year Book No. 2, pp. 1075–1080. See also Official Year Book No. 12, p. 999.

The strength of the military forces of the States on 31st December, 1900 (the eve of Federation) was :—New South Wales, 9,338 ; Victoria, 6,335 ; Queensland, 4,028 ; South Australia, 2,932 ; Western Australia, 2,696 ; Tasmania, 2,024 ; total for Australia, 27,353. This total was exclusive of cadets, reservists and rifle club members.

2. **Commonwealth System.**—(i) *General.* Under the terms of the Constitution Act 1900, the Commonwealth took over control of defence matters in March, 1901. The growth of the Commonwealth Military Forces may be considered to have taken place in fifteen phases, namely :—

- (a) The first phase, i.e., the welding together of the military forces of the States into one homogeneous army, was entrusted by the Government in 1902 to Major-General Sir Edward Hutton, K.C.B., K.C.M.G., and a sound foundation was laid, upon which the subsequent organization and training were based.
- (b) The second phase was the introduction of Universal Training in 1911. During 1909 a measure providing for universal training was enacted, and the scheme came into force in 1911 after the advice and recommendations of Lord Kitchener had been obtained. By the Defence Acts of 1903 and 1904 all male inhabitants between the ages of 18 and 60 years were made liable to serve in Australia with the defence forces *in time of war*. Subsequent legislation made training and service compulsory up to the age of 26 years *in time of peace*. By the Act of 1909 the principle of universal liability to training was made law for the first time in any English-speaking community. More detailed reference to these matters will be found in Official Year Book No. 12, p. 999 *et seq.*
- (c) The third phase, Divisional Organization, came into operation from 1st May, 1921. Under this system a war organization, evolved from the Australian Imperial Force, was applied to peace conditions, with a minimum of permanent personnel. Numbers of units and formations were altered to correspond with those of the A.I.F. and every effort was made to maintain the traditions established by those units in the 1914–19 War.

- (d) The fourth phase, which was initiated by the Government in 1922, entailed the reduction of the Divisional Organization to a nucleus force.
- (e) The fifth phase, the suspension of all compulsory obligations *in time of peace* (under Part XII. of the Defence Act) and the reconstitution of the forces on a basis of voluntary enlistment, was brought into operation as from 1st November, 1929. The Divisional Organization was retained, but the peace nucleus was reduced from 48,000 Citizen Forces and 16,000 Senior Cadets to 35,000 Militia Forces and 7,000 Senior Cadets, by reductions in the training establishments of units and by ceasing to maintain certain light horse regiments and infantry battalions. The peace nucleus of the Militia Forces was further reduced to 30,000 in 1931.
- (f) The sixth phase was initiated by the Government in July, 1936, whereby authority was given to raise the training strength of the Militia to 35,000, maintaining the Senior Cadets at 7,000. This strength was attained by December, 1936. The Divisional Organization was retained. Certain light horse regiments and infantry battalions which ceased to be maintained in the fifth phase, and were linked with other light horse regiments and battalions, were now resuscitated. In addition certain new units were organized as a first step towards the modernization of the field army and coast defence. These units included light horse machine gun regiments and anti-aircraft and searchlight units.
- (g) The seventh phase was initiated by the Government in November, 1938, when authority was given to raise the training strength of the militia to 70,000. This strength was attained in March, 1939. The Divisional Organization was retained, and in order to absorb the increasing numbers the policy of increasing unit establishments was adopted, but new units were formed in a few special cases only.
- (h) The eighth phase was initiated by the Government on 2nd September, 1939, when the Governor-General issued a proclamation of the existence of war or of a danger thereof and for the calling out of the Citizen Forces for war service.
- (i) The ninth phase was initiated by the Government on 13th October, 1939, when the organization of the Australian Military Forces into Commands came into operation.

The objects of the Command Organization are as follows :—

- (a) to bring peace organization into line with war organization ;
 - (b) to provide for the personal and whole-time guidance and supervision, by a higher commander, of divisional and other formation commanders, on questions of training and general preparedness for war ;
 - (c) to reduce the number of lower formations under the direct control of Army Head-quarters.
- (j) The tenth phase was initiated by the Government on 30th November, 1939, when a proclamation was issued under the Defence Act calling upon certain personnel to enlist and serve in the Defence Forces.
- (k) The eleventh phase : Owing to a considerable expansion in the administrative functions which the three main commands were called upon to perform, it was decided to relieve the G.Os.C. of these commands and their staffs of much of their administrative responsibilities in order that they might concentrate on operational matters. In January, 1942, therefore, Northern,

Eastern and Southern Commands were divided into separate command and base head-quarters—the command head-quarters to handle operational and base head-quarters administrative matters.

- (l) The twelfth phase : As a result of the expansion in supply and other administrative installations in Australia, it was found necessary to revise the machinery for command administration of lines of communication areas and to decentralize control. A division into lines of communication areas was therefore made, and these areas corresponded with Northern, Eastern, Southern and Western Commands and 7th and 8th Military Districts. Command and general administrative control of the lines of communication areas were placed under the respective base head-quarters and 7th and 8th Military Districts and came directly under Army Head-quarters.
- (m) The thirteenth phase : In August, 1941, War Cabinet approved of Lieutenant-General Sir Iven Mackay as G.O.C.-in-C. Home Forces commanding the forces in Northern, Eastern and Southern Commands. The G.O.C.-in-C. was made superior to the G.O.s.C. Commands for the direction of operations, but subordinate to the Military Board, which remained the body advising the Minister for the Army, and through him, War Cabinet.
- (n) The fourteenth phase : Shortly after the outbreak of war with Japan, a number of units of the United States Forces were routed to Australia. Subsequently additional forces arrived. By agreement among the Governments of the United States, the United Kingdom, the Netherlands and Australia in April, 1942, General Douglas MacArthur was appointed Commander-in-Chief, South West Pacific Area. General Sir Thomas Blamey was assigned to the command of the Allied Land Forces in the South West Pacific Area by General Head-quarters, South West Pacific Area. With the appointment of General Sir Thomas Blamey as Commander-in-Chief Australian Military Forces, the Military Board ceased to function and Army Head-quarters became Allied Land Forces Head-quarters, Australia. As from 9th April, 1942, the system of commands and bases was abolished and replaced by the field army and lines of communication areas which were established in each of the six States on the mainland plus Northern Territory and New Guinea. Field formations were formed as follows :—
- | | | |
|--------------------------|----|-------------------------------------|
| First Australian Army | .. | From Northern and Eastern Commands. |
| Second Australian Army | .. | From Southern Command. |
| III. Australian Corps | .. | From Western Command. |
| Northern Territory Force | .. | From 7th Military District. |
| New Guinea Force | .. | From 8th Military District. |

In March, 1943, First and Second Armies took over from Queensland, New South Wales and Victoria lines of communication areas the command of all coast and static anti-aircraft artillery defences and training establishments. On 16th June, 1944 Western Command was re-established and took over the combined responsibilities of III. Australian Corps and Western Australia Line of Communication Area.

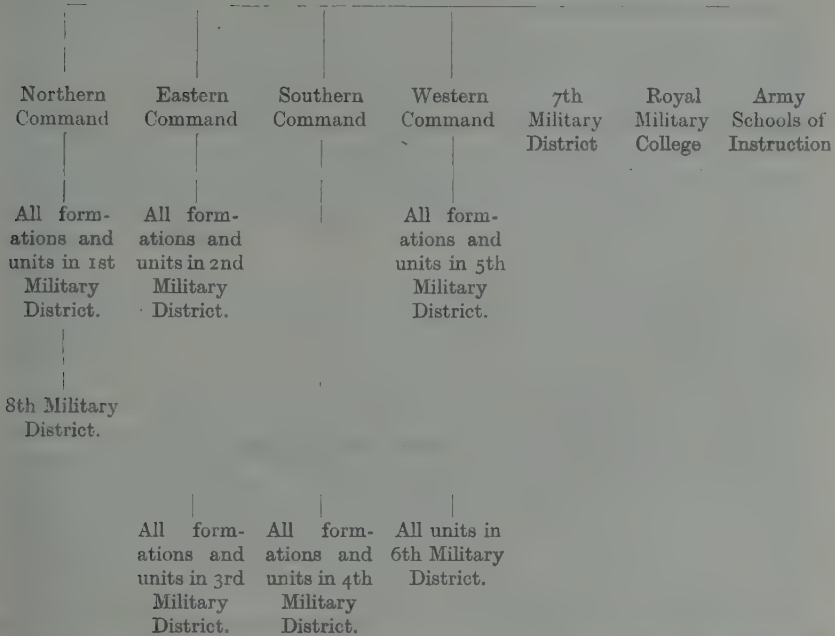
- (o) The fifteenth phase : In March, 1946, the Military Board and the organization of commands and military districts (see (i)) was re-introduced.

(ii) *Population of Military Age. Census, 1933.* The following particulars show the numbers of males of military age in the population of Australia, as at the Census of 30th June, 1933. The total number of cadet age, between 12 and 18 years, was 371,000; at citizen soldier age, between 18 and 26 years. 482,000; and between 26 and 35 years, 472,000; making a total of 954,000 between the ages of 18 and 35, which is considered the best period for military service. It is estimated that 620,000 of the males between the ages of 18 and 35 were unmarried or widowers without children, and 334,000 were married or widowers with children. In addition to the abovementioned, there were 972,000 males between the ages of 35 and 60 in Australia at the 1933 Census.

(iii) *Allotment of Units.* Under the Command Organization (*see* (i) (i) and (o) above) units are raised on a territorial basis, each State supplying its proportion of the personnel required for the fighting services.

COMMAND ORGANIZATION.

Army Head-quarters.



Military Districts conform generally to State or Territory areas, as follows:—1st Military District, Queensland; 2nd, New South Wales; 3rd, Victoria; 4th, South Australia; 5th, Western Australia; 6th, Tasmania; 7th, Northern Territory; 8th, New Guinea. Third Military District includes a considerable portion of Southern New South Wales, and 4th includes Broken Hill.

(iv) *Strength of Military Forces.* There was little alteration in the numbers serving in the Australian military forces from the institution of the Commonwealth to the year of the introduction of the compulsory training system. From 1913 to 1918, however, the annual increase was considerable. As a result of the International Conference which met at Washington on 11th November, 1921, it was decided to continue the universal training law, but its operation was restricted to the more populous centres and to certain quotas only. From 1st July, 1922 to 30th June, 1925, training in the Senior Cadets was limited to two quotas instead of four, and in the Citizen Forces to two quotas instead of seven. On 1st July, 1925, Senior Cadet training was reduced to one quota only, while Citizen Force training was increased to three quotas. These conditions remained in force until 1st November, 1929, when the constitution of the forces on a voluntary basis was adopted. During the period last mentioned, Senior Cadet training commenced on 1st July of the year in which Senior Cadets reached the age of 17 years, and on 1st July of the following year they were allotted to the Citizen Forces, in which training continued until 30th June of the year in which they attained the age of 21 years. Notwithstanding

the reduction in training, all males residing within 5 miles of a training centre were required to register during the months of January or February of the year in which they reached the age of 14 years. Junior Cadet training of boys of the ages of 12 and 13 years, which was in abeyance during the years 1922–23 and 1923–24, was also supervised by the Defence Department during the period 1st July, 1925, to 31st October, 1929.

Under the voluntary enlistment system, personnel might enlist for a first period of three years, and on its completion, the member concerned might be re-engaged for successive periods of two or three years until he reached the age for retirement.

The Australian Cadet Corps is a voluntary organization comprised of Senior Cadet Detachments raised at educational establishments in all States of the Commonwealth. It serves as a training ground to provide, to some extent, the future officers and non-commissioned officers of the Australian Military Forces, and, as such, occupies a foremost position in the scheme of national defence. The minimum age for enrolment in school detachments is 14 years and cadets, who receive a free issue of A.M.F. pattern uniform, may remain therein until they cease to be pupils of respective educational establishments. Provision is made for the appointment of officers, warrant and non-commissioned officers on an authorized scale from within school detachments which, as a matter of general policy, are not affiliated with units of the Military Forces, but may be so affiliated in special cases. The establishment for the whole Corps is 25,000 and by March, 1946 the number of Senior Cadet Detachments had been increased to 186 with an aggregate strength of approximately 22,350.

(v) *Royal Military College.* This College was established in 1911 at Duntroon in the Australian Capital Territory for the purpose of providing trained officers for the permanent military forces. In January, 1931 the College was transferred to Victoria Barracks, Sydney, but it returned to Duntroon early in 1937. Further particulars respecting the College are given on p. 915 of Official Year Book No. 15.

(vi) *Rifle Clubs.* The Australian Rifle Club movement, which had its origin in 1888, is provided for in the Defence Act and comprises a Commonwealth Council of Rifle Associations, which functions in an advisory capacity to the Minister and in the promotion of Inter-Empire and Interstate rifle competitions, State Associations, District Unions and Clubs. Prior to 1931 the administration of the organization was the responsibility of the Secretary for Defence. From that year its control reverted to the Military Board and Rifle Clubs were affiliated as reserves to Militia Force units. They continued in this role until the outbreak of the recent war, when, owing to the urgent demands of the A.I.F. and A.M.F., supplies of ammunition were cancelled and all rifles of members were impressed, mostly on payment. In 1941, rifle clubs were placed in recess and, with the exception of annual miniature rifle competitions, remained inactive until recently. When placed in recess, the efficient strength of the rifle club movement was 1,018 clubs and 36,478 members. From available statistics, it is estimated that, of the membership mentioned, approximately 20 per cent. served overseas and a further 60 per cent. performed home service duties during the recent war. A resumption of rifle shooting activities has now taken place.

3. 1939–45 War.—(i) *General.* At the outbreak of war in September, 1939, Australia possessed a partly trained militia force of 80,000 men supplemented by a small force of permanent soldiers and a Staff Corps of trained officers.

Recruitment of a special expeditionary force of volunteers, the Second Australian Imperial Force, began in September, 1939. In November, 1939, the compulsory provisions of the Defence Act were put into effect and the first class of eligible men was called up for full time duty for home defence. In the South West Pacific Area the Australian Imperial Force and Citizens Military Force fought as a unified command.

The first convoy of the A.I.F. sailed from Australia in January, 1940, and commenced war training in Palestine. The original intention was that after training in the Middle East the Australians would move to the Western European Front, but the collapse of France necessitated the discarding of this plan. A corps of three divisions (6th, 7th, and 9th) was eventually established in the Middle East while the greater part of a fourth (8th) was in Malaya. Part of the first division to sail from Australia was diverted to England but rejoined the main body in Egypt early in 1941.

Two of the three Middle East divisions returned to Australia early in 1942, and the third early in 1943, to meet the Japanese threat to Australia. The troops of the division in Malaya were mostly lost as prisoners of war upon the collapse of Singapore. Other A.I.F. units were sent to garrison Rabaul, Ambon, Timor and smaller islands off the northern coast of Australia. One force while travelling from the Middle East in 1942 was diverted to assist the Dutch in Java. Upon their return the A.I.F. divisions joined C.M.F. troops in New Guinea where the Japanese had gained a strong foothold in preparation for their drive against the Australian mainland. Thereafter the Australian forces were engaged in the South West Pacific Area.

(ii) *Middle East.* Late in December, 1940, after intensive training in Palestine and Egypt, the 6th Division came under command of General Wavell and relieved the 4th Indian Division between Sidi Barani and Sollum. On 3rd January, 1941, in conjunction with British ancillary units, the division attacked the Italian fortress at Bardia. Bardia fell on 5th January and with it 40,000 prisoners, 400 field guns, 130 tanks and much other booty. Retreating westwards across the desert the Italian army made its next stand at Tobruk. This fell to the Australian infantry and British tanks on 22nd January. The campaign then resolved itself into one of pursuit, and Derna, Cirene, and Barce fell in quick succession. Benghazi was surrendered to the Australians on 7th February. The Australian troops had advanced 360 miles in a little more than a month since their first action.

Because of aid having been promised to Greece, now facing invasion by the Germans, the 6th Division was withdrawn from the Western Desert and sent across the Mediterranean. Its place in the desert was taken by the 9th Division which was not, however, equipped for immediate action, being short of equipment, arms and vehicles. Greatly strengthened by the addition of German infantry, artillery and armoured units, the Axis forces heavily counter-attacked and forced the British and Australian forces to withdraw some 270 miles to Tobruk. Here the old Italian perimeter was hastily developed and manned while the Axis forces by-passed the town and isolated the garrison by cutting the Bardia road to the East. With its only communication with Egypt by sea, the garrison settled down to a siege by greatly superior forces. Continually short of water and food and harassed from the air, the Australian and British troops repulsed several heavy attacks by tanks and infantry, and maintained their resistance until relieved late in the summer of 1941.

In Greece the 6th Australian Division joined British and New Zealand forces. The Australian division and the New Zealand division became the Anzac Corps, thus reviving the association which led to the forming of the first Anzac Corps in 1915.

Only part of the 6th Division, however, had reached the front on the northern border of Greece when the Germans attacked in strength. Worn out by their long campaign against the Italians, the Greek army was quickly overwhelmed. Heavily outnumbered the force fell back to the Thermopylae Pass where the enemy was held for several days while ships were assembled for the evacuation.

On the night of 24th April the evacuation commenced and continued on the 25th, 26th and 27th, greatly hampered by the enemy's complete command of the air.

The main Allied force, after evacuating Greece, moved direct to Egypt, but a large number of troops, including several thousand Australians, was landed on Crete. The island was not prepared for a large scale attack, being short of all essentials, but the mixed British, New Zealand and Australian force was reorganized, equipped as well as possible, and disposed at strategic ports and aerodromes.

On 20th May, after a heavy air offensive, German paratroops were dropped and troop carrying gliders were released between Maleme and Cana. Fierce fighting followed. On 30th May an Australian battalion took up a holding position on a ridge over the beach at Sphakia from which the main force was evacuated to Egypt and Palestine.

In June, 1941, to forestall a possible German thrust into pro-Axis Syria, the 7th Division moved from Palestine to join British, Indian and Free French Forces in a three-pronged drive through that country.

Damascus surrendered on 21st June, after Australian troops had cut the Damascus-Beirut road, and General Dentz was granted a general armistice on 12th July, after the fall of Damour.

The last action of the Australian troops in the Middle East was fought by the 9th Division after the 6th and 7th had returned to Australia. After training in Syria, the 9th, together with the New Zealand Division, moved to Egypt and joined General Montgomery's Eighth Army. At this time the Axis forces had achieved considerable success by their rapid re-conquest of Cyrenaica and advance into Egypt. On 23rd October, 1942, after a series of smaller actions the Eighth Army launched an offensive which culminated on 4th November in the break through at El Alamein. This action opened the way for the advance of the Allied forces to Tunisia and the driving of the enemy out of Africa. After El Alamein the 9th Division was moved to Palestine and embarked a few weeks later for Australia.

(iii) *Malaya.* In Malaya troops of the 8th Australian Division first came under fire from the Japanese at Gemas, 150 miles north west of Singapore, where heavy casualties were inflicted on the enemy. However, the Japanese tactics of encirclement through the swamp and jungle, and by the sea in small craft, were so successful that the British-Australian force was compelled to fall back to Singapore island. The Australian battalions were given the western part of the island to defend, but their exposed position proved vulnerable to the enemy's air attacks. On the night of 8th February the Japanese attacked in strength and gained a foothold on Singapore island. The Australian troops moved further back and formed a strong perimeter which was still being held when the Command capitulated.

In an effort to stem the rapid Japanese drive westward a small body of homeward bound Middle East A.I.F. troops was diverted to Java to assist the Netherlands forces. On 28th February the Japanese landed at three different points and the garrison was overwhelmed. Organized resistance ended on 9th March, 1942.

(iv) *New Guinea and Adjoining Islands.* Immediately after the Japanese entered the war a small Australian force was sent to assist the Dutch in defending Timor. When the Japanese struck at Dutch Timor in the middle of February, 1942, part of this force had been transferred to Dilli, the capital of Portuguese Timor. The small garrison in Dutch Timor, although offering bitter resistance, was soon overwhelmed, but many Dutch and Australian troops managed to escape to join the Australian force at Dilli. In the same month the Japanese invaded Portuguese Timor. Here also the garrison resisted stubbornly, but the weight of numbers told. The surviving Australian troops took to the hills and assumed their predetermined role. Out of communication with the outside world for several months, the force carried on aggressive harassing tactics against a much stronger enemy. With wireless communication restored by about the middle of April, supplies were smuggled in and wounded evacuated by submarine. Reinforcements were landed in September, but the situation became impossible and the force was withdrawn in January, 1943.

Towards the end of January, 1942, the Australian garrisons, each of one battalion in strength at Rabaul, in New Britain, and on the island of Ambon, were overwhelmed by enemy forces. A small number of the Rabaul troops managed to make their way to the hinterland and later escaped to Australia.

In preparation for the invasion of the Australian mainland, a large Japanese force landed at Lae on the north-east coast of New Guinea in March, 1942. In July, more troops were landed at Buna and Gona further to the east. From Buna the Japanese commenced a southward drive over the rugged Owen Stanley mountains towards Port Moresby. This drive was stopped in September at Eoribaiwa Ridge by a seasoned Australian brigade of Middle East veterans and marked the turning-point in the war against Japan. Pressing home their success, Australian forces beat the Japanese back to the north coast and with the assistance of United States units eliminated the enemy force at Buna, Gona and Sanananda after four months' heavy fighting.

Part of the general plan of the Japanese for the capture of Port Moresby was the seizure of the natural harbour and air base at Milne Bay. To effect this a Japanese Special Naval Landing Force was put ashore under naval protection on the north-western corner of Milne Bay. Here they were opposed by two Australian infantry brigades. After several days of bitter fighting the survivors of the Japanese force evacuated by sea. This was the first defeat suffered by the enemy in their southward drive.

The next move of the Japanese in New Guinea was an overland drive from Salamaua in an attempt to capture the lightly held airfield at Wau. While the actual attack was in progress reinforcements were flown in and the Japanese force was routed. This began for the 3rd Division an arduous seven months' campaign during which the Japanese were driven back over the mountains and which culminated in the recapture of Salamaua on 11th September, 1943.

Meanwhile the 9th Division in co-operation with the United States Navy and Air Force landed east of Lae on the Huon Gulf, while the 7th Division, preceded by United States paratroops, landed at Nadzab, north-west of Lae. The two divisions converged quickly on the Japanese base and Lae fell to the 7th Division on 16th September, 1943. Part of the 9th then left the main body and moved east towards Finschhafen. The rest of the division followed and, after an opposed amphibious landing, Finschhafen fell to the Australians on 2nd October. By November, 1943, the Japanese were finally cleared from the hill country around Sattelberg and Wareo and the advance was continued along the coast to Sio. Here the 5th Division took over and moved on to Saidor, to the east of which contact was made on 10th February, 1944 with a United States force which had landed at Saidor on 2nd January to cut the Japanese line of retreat.

Moving inland from Lae up the Ramu Valley the 7th Division captured the airfield at Dumpu and cleared the enemy from the Finisterre Ranges. Relieving the 7th the 11th Division pressed on through Bogadjim to capture the port of Madang on 24th April. The advance along the coast was continued by the 5th Division. Alexishafen fell on 26th April. The Division reached Hansa Bay on 12th June and the mouth of the Sepik River on 13th July, 1944.

Late in 1944 Australian troops relieved the United States garrisons at Aitape in New Guinea, at Bougainville in the Solomons, and on New Britain. In the three areas the original task of the Australians was that of a holding role but the unexpected strength of the enemy led to heavy fighting at Aitape and on Bougainville.

From Aitape the Australians moved in two forces, one east along the coast, the other over the Torricelli Mountains, in an attempt at a pincer movement to drive the Japanese back to their main base at Wewak. Hampered by the swift flowing rivers and a high rate of sickness from malaria and scrub typhus the coastal force pushed through to capture Wewak on the 11th May, 1945. As the drive advanced along the coast thousands of the enemy moved inland over the mountains and strengthened the resistance against the smaller Australian force inland. Bitter fighting was still raging at the time of the Japanese surrender.

On 23rd November, 1944, the 2nd Australian Corps took over command of the Northern Solomons from the United States forces, with head-quarters at Torokina on the island of Bougainville, and shortly afterwards commenced a three way drive to the north, to the south and across the centre. By June, 1945 the enemy to the north had been driven on to the narrow Bonis Peninsula and, although still resisting strongly, was in a hopeless position. In the centre of the island active patrolling from Pearl Ridge towards Numa Numa had achieved complete control of the cross-island routes from Torokina, while the southern advance by the 3rd Division into the Buin area had set the stage for a decisive battle. This action was progressing favourably at the time of the Japanese surrender.

Responsibility for New Britain passed from the United States forces to the 5th Division in November, 1944. The main body of the division was based at Jacquinot Bay on the south coast while a battalion group occupied the Cape Hoskins area on the north coast.

Moving mainly by water in a series of bounds both forces progressed northwards until by 9th April forward troops were firmly established across the neck of the Gazelle Peninsula upon which the Japanese garrison was confined.

With its main task completed the force then commenced intensive patrolling of the Peninsula to discover the enemy's strength and dispositions so that plans could be laid for a later offensive. This action was proceeding when Japan surrendered.

(v) *Borneo.* The final campaign fought by Australian troops in the war was an attack by two divisions on Borneo. The operation was divided into three phases. On 1st May, 1945, a brigade group of the 9th Division, assisted by a small Netherlands East Indies force, went ashore on the island of Tarakan off the east coast and by June had taken possession of the island. This action was followed on the 10th June by the landing of the rest of the division on the former British territory of North Borneo.

On 1st July the 7th Division landed in the Balikpapan region of the east coast. Enemy opposition in each case was strong but at the time of the cessation of hostilities valuable territory had been recaptured.

(vi) *Women's Services.* At the outbreak of war the only women's service in existence was the Australian Army Nursing Service. The first contingent of nurses proceeded to Palestine early in 1940. During the war members of the A.A.N.S. served in England, Australia, Palestine, Libya, Egypt, Greece, Eritrea, Syria, Malaya, Ceylon, Papua, New Guinea, Solomons, New Britain, and Borneo.

War Cabinet approved of the formation of an Australian Women's Army Service on 13th August, 1941, its object being to release men for employment with fighting units. Enlistment began early in January, 1942. On 15th November, 1944, War Cabinet gave approval for the posting of up to 500 volunteers to New Guinea. A draft of 15 officers and 333 other ranks took up duty at Head-quarters First Army early in May, 1945.

In December, 1942, the Australian Army Medical Women's Service was formed to replace Voluntary Aid Detachments on full time service. Former V.As. formed the nucleus of this Service. A.A.M.W.S. served with hospitals overseas and in a hospital ship.

(vii) *Volunteer Defence Corps.* The Corps was inaugurated on 15th July, 1940. It reached its maximum strength in June, 1942, when enlistments totalled 98,000. The members, a few on full time, others on part time duty, were employed as plane spotters, coast watchers, and protectors of vital industries. Early in 1943 the Corps was charged with the responsibility for the manning, on a part time duty basis, of anti-aircraft and coast defence installations, including the close defence of fortress areas as its primary role. As a result of this policy over 10,000 full time duty A.M.F. personnel were released for duty in forward areas.

In consequence of the cessation of hostilities in August, 1945, authority for the complete disbandment of the Corps was announced.

(viii) *Gross Enlistments.* The number of gross enlistments as at 28th February, 1946, was as follows:—

Australian Imperial Force	(a) 460,466
Citizens Military Force	224,428
Permanent Military Force	6,496
Australian Army Nursing Service ..	3,857
Australian Women's Army Service ..	23,988
Australian Army Medical Women's Service ..	7,917
	<hr/>
	727,152

(a) Includes direct enlistments and 200,008 transferred up to 16th February, 1946 from Citizens Military Force to Australian Imperial Force.

(ix) *Casualties.* Particulars of casualties will be found in § 5 following.

(x) *Honours and Awards.* A list of the numbers of the various awards and decorations conferred is contained in § 6.

4 Australian Military Forces in the 1939-45 War—Chronology.—

MIDDLE EAST.

1939.

15th December.—Advance party of Australians embark for the Middle East.

1940.

11th January.—First Australian convoy (6th Australian Division) sails for Middle East.

1941.

3rd January.—Australian troops attack and penetrate Bardia defences. 5th January.—Bardia falls. 22nd January.—Tobruk falls. 30th January.—Australians enter Derna. 6th February.—Benghazi surrenders to Australians. 21st March.—Australians capture Giarabub. 24th March.—British and Australians commence withdrawal from area of El Agheila. 10th April.—Last Australian rearguard reaches Tobruk. First engagement of Australian and German forces on Greek front. 14th April.—First major Axis attack on Tobruk fails. 20th April.—British and Anzac forces in Greece withdraw to Thermopylae Line. 24th April.—Evacuation of Greece begins. Australians arrive in Crete. 20th May.—German paratroops land in Crete. 31st May.—British and Anzac forces evacuated from Sphakia. 8th June.—Australians (7th Division) cross Syrian Frontier. Tyre surrenders. 21st June.—Fall of Damascus. 9th July.—Damour taken after bloody fighting. 12th July.—Cease fire. French resistance ceases.

1942.

4th February.—Australians commence embarking for Australia at Suez. 10th July.—9th Australian Division goes into action at El Alamein. 23rd October.—9th Australian Division launches first attack in the British thrust at El Alamein.

1943.

1st February.—9th Australian Division sails for Australia.

MALAYA.

1941.

18th February.—Units of the 8th Australian Division arrive in Malaya.

1942.

14th January.—Australian troops make first contact with Japanese forces in Malaya. 15th February.—Fall of Singapore.

SOUTH WEST PACIFIC.

1941.

17th December.—Australian and Dutch forces occupy Timor.

1942.

23rd January.—Japanese land at Rabaul. 18th February.—Australian troops arrive in Java. 19th February.—Australian troops resist Japanese landing in Timor. 27th February.—Japanese land in Java. 7th March.—Japanese land at Lae and Salamaua. 10th March.—Japanese land at Finschhafen. 21st July.—Japanese land at Gona. 23rd July.—First contact between Australians and Japanese at Awala. 10th August.—Australian troops withdraw from Kokoda. 25th August.—Australians oppose Japanese landing at Milne Bay. After bitter fighting Japanese forces are withdrawn by sea on 5th September, having suffered their first decisive defeat on land. 28th September.—Australians re-take Eoribaiwa Ridge in the first stage of the Owen Stanley's offensive.

2nd November.—Australians re-capture Kokoda. 9th November.—Australians re-take Gorari. 11th November.—Australians capture Oivi. 13th November.—Australians capture Wairopi. 9th December.—Australians occupy Gona. 19th December.—Australians and Americans capture Cape Endaiadere.

1943.

2nd January.—Australians and Americans re-capture Buna. 22nd January.—Australians and Americans take Sanananda. 30th January.—Australians defeat Japanese attack on Wau. 3rd February.—Australians at Wau counter-attack and begin the drive to Salamaua. 16th March.—Japanese cleared from Mubo gardens. Area finally cleared 13th July. 21st August.—Australians capture Komiatum Ridge. 4th September.—Australians land at "Red Beach" on shore of Huon Gulf and begin drives to Lae and Finschhafen. 5th September.—American paratroops and Australian paratroops, artillery, engineers and pioneers seize Nadzab. 7th September.—Aerial movement of Australian troops into Markham Valley begins. 11th September.—Australians capture Salamaua. 16th September.—Australians take Lae. 2nd October.—Australians take Finschhafen. 4th October.—Australians capture Dumpu (Ramu Valley). 25th November.—Australians drive Japanese from Sattelberg Heights. 8th December.—Australians capture Wareo.

1944.

23rd January.—Australians capture Shaggy Ridge. 10th February.—Australians and Americans link up east of Saidor. 13th April.—Australians take Bogadjim. 24th April.—Australians take Madang. 26th April.—Australians take Alexishafen. 14th June.—Australians occupy Hansa Bay. 11th October.—Australians land on New Britain. 23rd November.—Australians take over from U.S. troops in Bougainville. 1st December.—Australians take over from U.S. troops in Aitape, New Guinea. 17th December.—Australians cross Danmap River, New Guinea. 18th December.—Australians occupy Artillery Hill, Bougainville. 30th December.—Australians occupy Pearl Ridge, Bougainville.

1945.

5th February.—Australians clear Balif, New Guinea of enemy. 5th March.—Australians take Saposa Island, in the Solomons. 16th March.—Australians firmly established in Soraken plantation, Bougainville. 17th March.—Australians occupy But airfield, near Wewak, New Guinea. 20th March.—Australians land on Soraken Peninsula, Bougainville. 22nd March.—Australians capture Dagua airstrip, near Wewak, New Guinea. 23rd March.—Waitavalo and Tol plantations, New Britain, captured. 30th March.—Australians win battle of Puriata River, Bougainville. 21st April.—Maprik villages and airfield, in Torricelli mountains south of Wewak, captured. 11th May.—Wewak captured in combined amphibious landing and land assault. 17th May.—Cape Boram, Wewak Area and Boram airfield captured. 22nd May.—Cape Moem, Wewak Area captured, thus restoring Allied control of entire British New Guinea coast. Buin road, Bougainville, between Hongorai and Pororei rivers cleared by Australian troops. 8th June.—Australian troops landed on Bonis peninsula, northern Bougainville. 11th June.—Australian troops occupied Yamil in Torricelli mountains, New Guinea. 16th June.—Total of 10,000 Japs reported killed in New Britain campaigns.

BORNEO.

1945.

1st May.—Australian troops landed at Tarakan Island (N.E. Borneo). 6th May.—Tarakan Town, Pamoesian oilfield and airstrip occupied. 11th May.—Djoeata oilfield occupied. 10th June.—Australian troops landed at Brunei Bay (N.W. Borneo), including Labuan and Muara Islands. 13th June.—Australian troops capture Brunei Town. 15th June.—Organized resistance ceases at Labuan Island. Muara Island reported clear of enemy. 20th June.—Australian troops landed in Sarawak (N. Borneo), at Lutong. 22nd June.—Organized resistance ceased on Tarakan. 22nd-23rd June.—Seria (Brunei) and Miri-Lutong (Sarawak) oilfields captured. 1st July.—Australian troops landed at Balikpapan (S.E. Borneo).

§ 2. Naval Defence.

1. **General.**—Information regarding naval defence systems prior to 1901 will be found in Official Year Book No. 2, p. 1084 while reference to the system of naval defence and the strength of the Naval Forces prior to the 1939–45 War appears in Official Year Book No. 32, p. 238.

2. Growth and Activities of the Royal Australian Navy during the 1939–45 War.—

(i) **Introductory.** On 2nd September, 1939, one day before the outbreak of war, the Royal Australian Navy was placed at the disposal of Great Britain. Before twelve months had passed, ships and men of the R.A.N. had been in action against the enemy in the Mediterranean, Arabian and Red Seas, and the Pacific and Atlantic Oceans.

(ii) **Naval Strength.** (a) *At Beginning of War.* The R.A.N. began the war with a small but balanced fleet, comprising six cruisers, five destroyers, two sloops, a survey ship and a depot ship, totalling approximately 60,000 tons. Construction of another two sloops had begun. The strength in ships was further increased during 1940 and 1941 by the taking up for naval duties of various merchant ships (armed merchant cruisers, minesweepers, etc.) and by the addition of four modern "N" class destroyers made available by the Admiralty. These were later added to by one "N" and two "Q" class destroyers, and the heavy cruiser *Shropshire* which was handed over as a gift from Britain to replace the *Canberra*, lost during August, 1942, at the first Savo Island Battle, Solomon Islands.

(b) **Naval Construction.** An extensive naval shipbuilding programme was commenced during 1940, and although at that time the Australian shipbuilding industry was of almost negligible proportions, highly satisfactory results were achieved during the war years when the following vessels were constructed:—Three Tribal Class destroyers—*Arunta*, *Warramunga*, *Bataan*, 7 Frigates (one not commissioned at end of war), and 60 Australian minesweeping vessels (corvettes), the majority of 650 tons displacement.

In addition, a floating dock of 2,000 tons, 3 oil fuel lighters of 1,200 tons, 35 fairmile motor launches of 80 tons, boom defence vessels, landing craft and other small vessels were constructed.

(c) **Naval Vessels Lost.** The following Australian naval vessels were lost during the war:—Three cruisers, 4 destroyers, 2 sloops, 3 corvettes, 1 auxiliary minesweeper, 1 depot ship, 4 store carriers, 1 small survey vessel and 2 fairmiles.

(d) **Strength at end of War.** At the date (2nd September, 1945) of the formal surrender of the Japanese Empire, Australian Naval strength consisted of:—Three cruisers, 9 destroyers, 3 landing ships (infantry), 1 destroyer transport, 1 destroyer escort, 2 sloops, 6 frigates, 53 corvettes (Australian built minesweepers), 3 auxiliary anti-submarine vessels, 5 auxiliary minesweepers, 10 auxiliary vessels (ammunition, victualling and store carriers), 1 fleet oiler, 3 repair ships, 9 boom defence vessels, 5 tugs, 2 cable repair ships, 7 surveying vessels, 28 fairmiles, 26 harbour defence motor launches, and 140 miscellaneous small craft.

(iii) **Naval Operations.** (a) *2nd September, 1939 to 6th December, 1941.* When hostilities commenced, the main units, with the exception of *Perth*, were in Australian waters. *Perth* remained until March, 1940 on patrol and escort duties in the Caribbean Sea and Western Atlantic. By Christmas, 1939, the five destroyers were in the Mediterranean where the *Sydney* joined them before the entry of Italy into the war in June, 1940. From then on, right throughout the difficult days of the Naval War in the Mediterranean, the R.A.N. was strongly represented there by cruisers, destroyers and sloops. There were never between May, 1940 and December, 1941 less than one cruiser and four destroyers serving with the Mediterranean Fleet at any one time. During the months of May and June, 1941—the critical period of the evacuations of Greece and Crete, the Syrian campaign and the enemy investment of Tobruk, in all of which operations the R.A.N. ships were actively engaged—nine units including *Perth*, seven destroyers and one sloop were in the Mediterranean. During this period the destroyer

Waterhen and the sloop *Parramatta* were lost in action, while on the "Tobruk Ferry Run". On this run Australian destroyers inaugurated carrying supplies from Mersa Matruh and Alexandria to the besieged troops at Tobruk.

Sydney played the principal role in an outstanding action in the Mediterranean during July, 1940, when she put to flight two Italian cruisers, one of which, *Bartolomeo Colleoni*, was crippled by *Sydney's* fire, and finished off by torpedoes from R.N. destroyers *Nex* and *Hyperion*. *Sydney* was afterwards lost in November, 1941 while in the Indian Ocean, during an engagement with the German raider *Steiermark* in which the enemy vessel was sunk.

Australia was active in the Atlantic from June, 1940 to February, 1941, and was involved in the operations off Dakar (July and September, 1940). In the second phase of that undertaking, she put out of action a Vichy French destroyer of the Fantasque Class. Before leaving Dakar, *Australia* herself was slightly damaged.

During early August, 1940, *Hobart* assumed the major role in the direction of the evacuation of British Somaliland at the port of Berbera, and carried out the final demolitions and bombardment of that port.

A year later, in the Persian Gulf, the armed merchant cruiser H.M.S. *Kanimbla*, manned by R.A.N. personnel, and the sloop *Yarra* helped to immobilize Iranian warships in the Karun River, and captured several Axis merchant ships at Bandar Shapur.

(b) *7th December, 1941 to end of War.* When Japan struck with overwhelming force on 7th December, 1941, eight R.A.N. ships were in Malayan waters. Six others, including *Hobart* and *Perth*, arrived soon afterwards. From then on, until after the invasion of Java in late February, 1942, the ships were under almost constant enemy air, submarine and surface attacks as they carried out their duties of minesweeping, anti-submarine protection, patrolling and convoy escort work. The destroyer *Vampire* was on the screen of H.M. Ships *Prince of Wales* and *Repulse* when they were sunk off Malaya by torpedo bombers on 10th December, 1941; *Vampire* rescued 225 survivors. *Vampire* was later sunk by enemy aircraft during the Japanese task force raid into the Bay of Bengal in April, 1942. The sloop *Yarra* was lost while endeavouring to defend a small convoy against a Japanese force of three heavy cruisers and four destroyers. *Perth* was lost in action against numerically superior enemy forces in Sunda Strait on the night 28th February–1st March, 1942. The remaining Australian ships were among the last to leave Singapore and the Dutch East Indies.

Nearer home, the R.A.N. was active in the close defence of Australia. Troops and supplies were carried to Ambon, Dutch Timor, Papua and New Guinea. The R.A.N. was responsible for all shipping movements, the supply of convoy escorts and anti-submarine protection. Much of this work was carried out under heavy enemy air attack, and without our own air cover. *Australia* and *Hobart* were part of the Allied cruiser and destroyer Task Force which screened Port Moresby during the Coral Sea Battle in May, 1942, in which U.S. carrier aircraft smashed Japanese invasion forces and frustrated the enemy attempt on Port Moresby. This proved to be the point at which the Japanese seaborne drive on Australia was finally halted.

Throughout the period of the building up for, and the eventual mounting of, the offensive against Japan in the South West Pacific, the R.A.N. was responsible for the maintenance of essential sea communications between Australia and New Guinea. It was also responsible for the maintenance of the Australian coastal traffic which transported the vital raw materials for heavy industry. The corvettes and survey ships of the R.A.N. led the gradual encroachment of Allied power around the eastern tip of New Guinea, and made possible the successful campaigns which followed. The cruisers *Australia*, *Canberra* and *Hobart* led the Allied attack on the Solomon Islands in August, 1942, during which *Canberra* was lost. The destroyer *Voyager* was lost during the night of 22nd September, 1942, while disembarking Army personnel and stores at a point on the Timor coast about which only meagre navigational data were available. The corvette *Armidale* was lost to enemy air attack in the Arafura Sea during December, 1942, while reinforcing Australian Army forces in Timor.

December, 1943 marked the beginning of the long series of amphibious operations which finally defeated the enemy forces in the South West Pacific. The cruisers and Tribal destroyers operating with Task Forces under the control of the Commander (United States) of Allied Naval Forces, South West Pacific, took part in practically every one of these operations, which included the landings at Arawe, Cape Gloucester, Saidor, Admiralty Islands, Hollandia, the Islands of Biak, Noemfoor, Morotai, Leyte and Luzon, and the three Borneo landings (Tarakan, Brunei and Balikpapan) of the A.I.F. R.A.N. ships of all types supported Australian Army operations in New Guinea, New Britain and the Solomons areas, and R.A.N. survey ships were prominent in the preliminary work for all the operations of this period.

During the invasion of the Philippine Islands, Australian cruisers, destroyers and landing ships took part in the operations off Leyte Island in October, 1944. *Australia* suffered damage when struck by an enemy aircraft and sustained 30 fatal casualties—including her Commanding Officer—and a number of wounded. *Shropshire* and *Arunta* also took part in the Battle of Surigao Strait later in the month.

In January, 1945 Australian cruisers and destroyers took part in the invasion of Luzon Island. *Australia*, which had been repaired was again damaged, this time by five enemy suicide aircraft, and extensive repairs were necessary.

Following Japan's entry into the war, the five "N" and two "Q" Class destroyers together with 13 corvettes served with various British Commands, mainly with the Mediterranean and Eastern Fleets. Some of them took part in operations such as the invasions of Madagascar and Sicily, and in the landings in North Africa; others assisted the great Russian drives by carrying out monotonous but valuable escort work in the Persian Gulf, the southern point of entry for war material destined for Russia. The destroyers took their part in fighting the convoys through to Malta, enabling that fortress to withstand the heaviest air attacks the Italians and Germans could inflict on it. It was after the crucial Malta convoy battle in June, 1942, that the destroyer *Nestor*, while returning to Alexandria, was sunk by enemy aircraft.

During the last year of the war, the "N" and "Q" destroyers and 18 corvettes (21st and 22nd Minesweeping Flotillas) were attached to the British Pacific Fleet. These ships, and the 3,000 personnel involved, were additional to the Australian warships and men serving under American operational control in the South-West Pacific area. All the ships formed part of the Task Units, British Pacific Fleet, and were engaged in the Fleet Train or on screening duties for carrier-borne operations against the Japanese mainland. After the surrender of Japan the 21st and 22nd Minesweeping Flotillas, together with 8 other corvettes, were engaged in minesweeping activities at Hong Kong and off the China Coast.

(iv) *Attacks on Australian Coastal Shipping.* Australian coastal shipping was not neglected by the enemy. Early in the war there occurred a series of daring attacks on passenger and cargo ships by German surface raiders which also shelled Nauru and laid minefields in our coastal waters. These raiders, the *Narvik*, *Manyo Maru* and *Tokyo Maru*, claimed their first victim, the French steamer *Notou*, en route from Newcastle to Noumea, on 12th August, 1940. Generally operating as a trio, they ranged over waters east and south of Australia for a period of slightly more than six months. They sank a total of 10 ships, including the 10,700 ton passenger liner *Rangitane*; they also laid minefields which were responsible for the loss of four ships and damage to a fifth. After sinking five ships in the Nauru area early in December, 1940, one of the raiders heavily shelled the phosphate-loading equipment at Nauru, and the *Manyo Maru* and the *Tokyo Maru* landed 496 prisoners on Emirau Island. These survivors reached Australia by rescue ship on 1st January, 1941.

The next intrusion into the shipping lanes along the east coast of Australia occurred after the Coral Sea Battle, when Japanese naval operations south of the equator were confined to attempts to cut Allied lines of communication by submarine attacks. On the night of 31st May, 1942, Japanese midget submarines attacked shipping in Sydney Harbour, sinking the naval depot ship *Kuttabul*, a former Sydney ferry. At least three midget submarines were destroyed by Harbour defence vessels. The Sydney Harbour

raid was the precursor of a submarine campaign against shipping off the east coast of Australia, and during June several vessels were attacked, one being torpedoed and sunk. Although some of these submarines were destroyed by Allied aircraft, two more attacks were recorded in August, and between January and May, 1943, eight freighters and the hospital ship *Centaur* were torpedoed off the east coast.

No further attacks were experienced until December, 1944, when early in the month an Allied merchant ship was shelled by an enemy submarine in Bass Strait, and early on Christmas morning an Allied merchant ship was sunk by a torpedo from an enemy submarine between Sydney and Melbourne.

When, owing to the Japanese submarine menace, the convoy system was instituted around the Australian coast in June, 1942, Australian escort vessels were employed to protect the convoys. As the Allied forces moved northward to New Guinea and along the northern New Guinea coast, the convoys were extended, and, by the end of the war, Australian escort vessels had afforded anti-submarine protection to vast numbers of Allied troops and quantities of Allied war materials to places as far afield as Morotai, Borneo and the Philippines.

(v) *Naval Personnel.* One important difference marked the R.A.N. of September, 1939, from that of August, 1914. This was that the majority of the ships were commanded by R.A.N. officers, graduates of the R.A.N. college, and, with the exception of a few officers and men of the Royal Navy on customary exchange, the ships were manned throughout by Australian officers and men who had received their training at the Naval College and Flinders Naval Depot. Later, in May 1944, Captain J. A. Collins, C.B., R.A.N., was appointed to the operational command of the R.A.N. Squadron, with the rank of Commodore First Class. This was the first time in its history that the squadron had come under the command of an officer of the R.A.N., and a graduate of the R.A.N. college.

At the outbreak of war, the strength of the R.A.N. was 5,440. This figure was doubled overnight as Reserve personnel were mobilized. Some of the Reservists went into shore establishments on base staffs, Naval Control and the examination service; others were drafted immediately to sea, a large number sailing as gunners in defensively equipped merchant ships. There was never a shortage of volunteers, and recruiting progressed steadily.

At the end of the war, there were 36,257 mobilized personnel in the R.A.N. (exclusive of W.R.A.N.S. and the R.A.N. Nursing Service).

In June, 1944, there were still approximately 500 Australians serving on loan with the Royal Navy, and, of these, more than 400 were members of the Royal Australian Navy Volunteer Reserve. These volunteers enlisted under the "Yachtmen's Scheme" by which peace-time yachtmen, pastoralists, professional men and business executives joined the R.A.N.V.R. for service with the Royal Navy. Those over thirty years of age were required to pass the navigation tests for the Yachtmaster's Certificate, and were granted commissions before they left Australia. The younger volunteers reached the United Kingdom as ratings, were trained in craft ranging from destroyers downwards, and then entered H.M.S. *King Alfred* training establishment to complete courses for their commissions. The first batch left for Britain in January, 1940, and the last group enlisted under the scheme sailed in February, 1942. Many distinguished themselves while serving in every type of vessel, and carrying out every type of duty. In June, 1944, R.A.N.V.R. officers serving with the Royal Navy held the following commands:—1 destroyer, 1 frigate, 2 corvettes, 1 submarine, 1 Fleet minesweeper, and 4 flotillas of tank landing craft.

This list does not take into account the considerable number of Australians commanding individual "little ships" such as motor torpedo boats and various types of landing craft.

(vi) *The Women's Royal Australian Naval Service.* The W.R.A.N.S. was first formed in April, 1941, and at the end of hostilities had a strength of 2,590 members who were serving at shore establishments in every State. The W.R.A.N.S. was created

so that men might be relieved for duty at sea and the shore establishments still maintained at full strength. The first W.R.A.N.S. joined as wireless telegraphists, and their success was so marked that before long others were serving as telegraphists, visual signallers, motor drivers, sick-berth attendants, dental mechanics and attendants, writers, supply assistants, cooks, stewardesses, telephonists and messengers. The W.R.A.N.S. trained their own officers, some for administrative work in connexion with the W.R.A.N.S., and others who undertook secretarial and similar appointments.

(vii) *The Royal Australian Naval Nursing Service.* This service was established in April, 1942, and when hostilities ceased had a membership of 60.

A total of 860 decorations and awards to R.A.N. personnel for actions in all theatres of war had been announced on the cessation of hostilities. This number included 18 awards bestowed by United States authorities, 4 Royal Netherlands and 4 Greek decorations.

(viii) *Casualties.* A table showing the numbers of casualties in the European and Pacific zones of operations is included in § 5.

(ix) *Decorations and Awards.* Particulars of decorations and awards appear in § 6 following.

§ 3. Air Defence.

1. *General.*—A statement respecting the preliminary steps taken in connexion with the development of air defence will be found in Official Year Book No. 18, p. 610.

2. *Expansion and Development of the Royal Australian Air Force during the 1939-45 War.*—(i) *Constitution and Expansion of Air Board.* Prior to 13th March, 1940, the Air Board consisted of the Chief of the Air Staff, the Air Member for Personnel, the Air Member for Supply, and the Finance Member (civilian). The Secretary, Department of Air was an ex-officio member of the Air Board.

On 13th March, 1940, the Air Board was re-organized and re-constituted as follows :—the Chief of the Air Staff, the Air Member for Personnel, the Air Member for Organization and Equipment, the Director-General of Supply and Production (civilian), and the Finance Member (civilian). The Secretary, Department of Air was an ex-officio member.

On 12th December, 1940, an additional member—the Business Member—was appointed.

The expansion of the R.A.A.F. and the formation of Allied Air Head-quarters necessitated a re-organization of the Air Board consequent on the transfer to Allied Air Head-quarters of the operational functions formerly exercised by the Chief of the Air Staff. This re-organization, which was effective from 4th June, 1942 until the cessation of hostilities on 15th August, 1945, provided for the following Board members :—the Chief of the Air Staff, the Air Member for Personnel, the Air Member for Engineering and Maintenance, the Air Member for Supply and Equipment, the Finance Member (civilian), and the Business Member (civilian). The Secretary, Department of Air was an ex-officio member.

(ii) *Strength of Personnel and Units at Outbreak of War.* The strength of the R.A.A.F. at the outbreak of war (3rd September, 1939) was 310 officers and 3,179 other ranks.

There were 12 squadrons in existence of which two were formed in nucleus only, while a number of the flying personnel of No. 10 Squadron was in England taking delivery of the Sunderland flying boats with which that squadron was to be equipped.

In addition to R.A.A.F. Head-quarters, there were four R.A.A.F. stations (Laverton, Richmond, Rathmines and Pearce), one Training Depot (Laverton), two Aircraft Depots (Richmond and Laverton), one Armament Training School (Cressy) and one Flying Training School (Point Cook).

The squadrons were located at Laverton, Richmond, Rathmines and Pearce, but during the precautionary stage prior to the outbreak of war, two squadrons (Nos. 12 and 23) moved to their permanent stations at Darwin and Archerfield.

As a gesture to the British Government, No. 10 Squadron, equipped with Sunderlands, was loaned to the R.A.F. Coastal Command on the outbreak of war. This was the first R.A.A.F. squadron to see action.

(iii) *War-time Development and Expansion of Front Line Squadrons.* The approved pre-war development programme was 19 squadrons with a first-line strength of 212 aircraft with a reserve of 50 per cent. This programme was to be completed by June, 1941.

At a meeting held on 22nd September, 1939, the Defence Committee endorsed a recommendation by the Air Board that the R.A.A.F. should be increased by 13 squadrons (making a total of 32) and consequent ancillary units.

War Cabinet on 2nd March, 1942 approved of a further expansion of the R.A.A.F. to 73 squadrons. Expansion in accordance with that plan was, however, retarded because of difficulties experienced in obtaining the requisite aircraft. As the result, following on decision of War Cabinet on 5th October, 1942, the planned rate of expansion of R.A.A.F. squadrons was reduced as follows:—(a) by April, 1943, to 35 squadrons; (b) by September, 1944, to 51 squadrons. The additional 16 squadrons were to be formed and maintained from local production.

That planned expansion was, however, retarded because aircraft deliveries fell below requirements and programmed deliveries.

On 2nd March, 1943, War Cabinet, taking into account revised figures of anticipated deliveries from overseas and local production, approved of the following recommendations relative to the expansion of the R.A.A.F.:—(a) expansion of the R.A.A.F. in 1943 from 30 to 45 squadrons for which aircraft should be available from local and overseas production by December, 1943; (b) essential preliminary planning to be arranged for the further development of the R.A.A.F. up to a total of 51 squadrons in 1944; (c) the establishment of such ancillary units as were required to meet the operational needs of the Allied Air Forces in the South West Pacific Area; (d) appointment and enlistment of the necessary personnel required for such expansion.

In October, 1943, a review of the nature, extent and balance of the war effort in the light of manpower position was made by War Cabinet, and the monthly allotment of manpower to the R.A.A.F. was greatly reduced.

War Cabinet decided that the Commonwealth's part in the Empire Air Training Scheme should be directly related to the contemplated strength of the R.A.A.F. in the South West Pacific area; that, in order to avoid disrupting the E.A.T.S., the outflow of personnel should be continued on a diminishing basis; and that the strength of the R.A.A.F. should be stabilized at the (then) present strength in Australia (48 squadrons) plus the numbers that could be transferred from overseas, plus the strength that could be maintained from the reduced intake.

Following a review of the strength of the R.A.A.F. in October, 1943, it was estimated from the revised manpower allocation that the R.A.A.F. could be developed in 1944 to a total of 53 R.A.A.F. squadrons in Australia.

In addition to 53 R.A.A.F. squadrons in Australia, there were to be 3 R.A.F. squadrons (Spitfires) and 2 N.E.I. squadrons, as well as the two permanent squadrons of the R.A.A.F. overseas (Nos. 3 and 10)—a total of 60 squadrons.

By 1st September, 1945 there were 53 R.A.A.F. squadrons in S.W.P.A., 2 R.A.A.F. squadrons overseas (Nos. 3 and 10), plus 4 R.A.F. squadrons, and 2 N.E.I. squadrons operating under R.A.A.F. Command in S.W.P.A. In addition there were 2 R.A.F. and 1 N.E.I. transport squadrons. As at the cessation of hostilities in Europe, Australia had provided 15 squadrons in that theatre under the E.A.T.S.

(iv) *Administrative and Operational Control of R.A.A.F.* On 30th April, 1942, operational units of the R.A.A.F. in the South West Pacific area and elements of the 5th (U.S.) Air Force were combined operationally under Lieutenant-General Geo. H. Brett, who was appointed Commanding General of the Allied Air Forces, S.W.P.A.

By agreement with the Commanding General, Allied Air Forces, and effective from 9th September, 1942, R.A.A.F. staff were withdrawn from Allied Air Head-quarters and there was established in Brisbane a R.A.A.F. Command, known as "R.A.A.F. Command, Allied Air Forces".

The function of R.A.A.F. Command was the operational control, under the Commanding General, Allied Air Forces, S.W.P.A., of such R.A.A.F. operational units and other Allied units as from time to time might be assigned to it.

On 26th February, 1944 operational control of R.A.A.F. units in Southern New Guinea (excluding Goodenough and Kiriwina) was placed under R.A.A.F. Command, instead of 5th Air Force as hitherto. This was later extended to cover Northern Areas of New Guinea, Halmaheras and Borneo.

R.A.A.F. Command did not exercise any administrative function in respect of any R.A.A.F. formation or unit, administrative control having been exercised by R.A.A.F. Head-quarters through the various Group and Area Head-quarters. Advanced echelons of R.A.A.F. Head-quarters were established as necessary to maintain administrative contact with General Head-quarters, S.W.P.A.

(v) *Training of Empire Air Training Scheme Personnel.* When the Empire Air Training Scheme was first visualized, it was anticipated that all advanced training would take place in Canada (after elementary training in the respective dominions) with a calculated peak output of 50,000 aircrew annually.

During the Ottawa conference of November, 1939, it was decided that Australia would fully train 7/9ths of her E.A.T.S. personnel, sending the remaining 2/9ths to Canada for advanced training. This was the basis adopted.

Rhodesia was used to relieve Australia's aircrew waiting list before the Australian training was fully under way.

The United Kingdom agreed to contribute to both the Australian and Canadian schemes certain aircraft, spares and similar supplies. The remaining costs in Australia were borne by Australia, which also contributed to the remaining costs of the Canadian scheme, first on a basis of 11.28 per cent. of the total costs and later on a fixed "per capita" charge of 7,000 dollars (£A.1,981) per Australian trainee.

The following figures include all Australians trained to 31st March, 1945 (the date of cessation of the scheme):—

		Intake.		Output.
Australians trained in Australia	.. ..	(a) 40,089	..	27,387
Australians trained in Canada	.. ..	10,351	..	9,606
Australians trained in Rhodesia	.. ..	674	..	583

(a) Includes 8,604 wastage in Australia and 4,098 aircrew still in training at 31st March, 1945. The total Australian intake to training amounted to 51,114.

The overseas drafts were partially trained in Australia. Pilots for Canada were trained in Australia to Elementary Flying Training School stage, and all other categories (Observers, Wireless Air Gunners, etc.) were trained in Australia to Initial Training School stage.

During the training of Australian aircrew under the E.A.T.S., 316 deaths occurred due to flying accidents. Of these, 231 occurred in Australia, 65 in Canada and 20 in Rhodesia.

(vi) *Peak Strength of Personnel and Strength of Units at End of War.* The highest figures of personnel serving in the R.A.A.F. were reached on 29th November, 1944, when there were 20,691 R.A.A.F. officers, 144,674 airmen, and 657 W.A.A.A.F. officers and 17,800 airwomen—a grand total of 183,822.

Royal Australian Air Force personnel served in every theatre of war in the world with the exception of China. (Catalinas, however, carried out mine-laying operations off the China Coast).

On 1st September, 1945, there were 489 individual units in the R.A.A.F., compared with the original 22 at the outbreak of war.

3. *Zones and Operations.*—(i) *European War.* (a) *From Outbreak of War to Fall of France.* At the outbreak of war many Australians were serving with Royal Air Force Squadrons. These were the first Australians to take part in the air war against Germany. Some fought with squadrons of the Advanced Air Striking Force through the Battle of France, some with Fighter Command squadrons, and others with Bomber Command in its bombing offensive against targets in Germany and Norway. In addition to the Australians in Royal Air Force squadrons there were in England at the outbreak of war a few flying boat crews of No. 10 Squadron, R.A.A.F. preparing to take delivery of Sunderland Flying Boats and to fly them to Australia. Other crews arrived at the end of the year. In October, 1939, the Commonwealth Government offered the personnel and aircraft of this Squadron to the United Kingdom Government for service with Coastal Command. This offer was accepted and No. 10 Squadron became the first Dominion squadron to operate against the enemy.

(b) *From Fall of France to end of 1942.* Following the fall of France and the entry of Italy into the war in 1940 the land battle was transferred to the Egyptian and Libyan Zone. At the request of the Air Ministry, No. 3 squadron, R.A.A.F. was sent to this theatre for army co-operation duties with the A.I.F. divisions. This squadron later became a fighter squadron.

In April, 1941, the first R.A.A.F. squadron under Article XV. of the Empire Air Training Scheme agreement (No. 452 squadron) was formed in England. It was equipped with Spitfires and fought with Fighter Command. By the end of 1941 seven more Article XV. squadrons were formed. A second Spitfire squadron, No. 457, and a night fighter squadron, No. 456, were formed to augment the resources of Fighter Command for the defence of Britain. Nos. 455 and 460 squadrons were the first R.A.A.F. squadrons to operate with Bomber Command. No. 458 squadron, equipped with Wellingtons, carried out bombing missions with Bomber Command for twelve months before being transferred to the Middle East where, during the year, two fighter squadrons, Nos. 450 and 451, had been formed.

In the United Kingdom five new R.A.A.F. squadrons were formed in 1942. The first of these, No. 461, was equipped with Sunderlands and, with No. 10 squadron, operated with Coastal Command on anti-submarine patrols. No. 455 was transferred from Bomber Command and became a Coastal Command squadron, using Hampden bombers to carry torpedoes against enemy shipping on the coast of Norway. A detachment of this squadron went in August, 1942 to Russia where it carried out convoy escort duty and mapped part of the Arctic Ice Barrier. No. 464 Squadron, armed at first with Venturas and later with Mosquitos, carried out low-level daylight attacks against important pin-point targets.

To increase Bomber Command's growing power all R.A.A.F. squadrons formed in the United Kingdom after 1942 were bomber squadrons. These included Nos. 466 and 467. In 1943 No. 462 squadron, equipped with Halifaxes, was formed in the Middle East. It took part in bombing operations in North Africa and Italy. Number 463 was equipped in the United Kingdom with Lancasters. In the Middle East, two other R.A.A.F. squadrons were added during 1942, No. 454 equipped with Baltimores and No. 450 with Hudsons. Both of these squadrons were engaged in naval co-operation work—convoy escort and sea reconnaissance.

(c) *From 1943 to end of War.* In 1943 and the following years R.A.A.F. squadrons operated in many theatres. In the Middle East Nos. 3 and 450 squadrons destroyed enemy aircraft, dive-bombed fortifications to clear the way for the army, and disrupted the enemy's retreat by strafing and bombing motor transport and barges. From Italy these squadrons flew across the Adriatic to assist the Yugoslav partisans by bombing and destroying enemy shipping and concentrations. No. 451 squadron followed the Eighth Army to Tunisia, then went to Corsica to give fighter cover to day bombers operating against Italy and then joined in the invasion of Southern France. No. 454 squadron, in co-operation with the Navy, escorted convoys and destroyed enemy ships and barges. Later, in Italy, as a bomber squadron, it attacked marshalling yards and enemy strong-points. Nos. 458 and 459 squadrons were also on naval co-operation duties. No. 458 moved up to Malta and on to Tunisia escorting convoys and attacking enemy shipping. No. 459 escorted convoys and carried out general reconnaissance tasks and was finally used as a bomber squadron over Italy, Greece and Crete.

In the United Kingdom, Nos. 10 and 461 Squadrons operating with Coastal Command continued their anti-submarine patrols and protected convoys bringing troops and war materials to the invasion armies assembling in Britain. No. 455, re-armed with Beaufighters, continued its attacks with torpedoes, rockets and cannon against enemy shipping in the North Sea and along the Norwegian coast. From 1943 to the end of the war R.A.A.F. Squadrons serving with Bomber Command continued their attacks on strategic targets in Germany and the occupied countries, destroying oil plants, communication centres and power supplies. No. 404 Squadron, its Venturas having been replaced by Mosquitos, became one of the units of the Tactical Air Force on intruder operations, and eventually followed the invasion forces to the continent. In the air defence of Great Britain, Nos. 453 and 456 Squadrons, formerly Fighter Command, continued to represent the R.A.A.F. No. 453 was employed on interception and fighter cover for day bombers proceeding to and from the continent. In 1944 this Squadron, joined later by No. 451, was employed in dive-bombing operations against the launching sites for the enemy's new "V" weapons while No. 456 engaged flying bombs in the air.

(d) *Summary of Operations of Squadrons in United Kingdom at end of War.* Squadrons which were operating in the United Kingdom at the close of the war in Europe had flown a total of 30,981,000 operational miles in 65,841 sorties against the enemy. Their record includes 35 enemy ships or submarines destroyed and 206 probably destroyed or damaged, 109 enemy aircraft destroyed and 238 probably destroyed or damaged, and 24½ flying bombs shot down. R.A.A.F. bombers dropped 59,419 tons of bombs on enemy targets.

(e) *Australian Aircrew in R.A.F. Squadrons.* As yet no mention has been made of the service in every theatre of the War of the many thousands of Australian aircrew who were absorbed directly into R.A.F. Squadrons. During the period May, 1941 to May, 1945 approximately 60 per cent. of all Australian personnel entering R.A.F. Operational Commands served in R.A.F. Squadrons, and since for many reasons the policy for Dominion personnel to serve only in units of their respective Dominions was impossible, there were eventually very few R.A.F. Squadrons which had not had at some time or other Australian aircrew on strength.

These personnel were allocated to every Command—Coastal, Fighter, Bomber, Middle East, Army Co-operation, Transport and Flying Training Commands. In addition, a large number went to the Allied Expeditionary Air Force and the Second Tactical Air Force, and their duties covered the entire range of the manifold tasks of these forces.

Because they were so widely scattered, it is impossible to separate the weight of the effort of the Australian personnel from the vast number of men from all the Dominions who were serving under the same terms. Apart from those operating with the Middle East Command, several thousand aircrew were absorbed in this manner into R.A.F. Operational Squadrons based in England, whilst an additional 1,000 served as instructors under Flying Training Command.

(ii) *War Against Japan.* (a) *Malaya and Operations from North-West Australia.* In 1940 Australia's offer of an air contribution to the Malayan Garrison was accepted by the British Government and three squadrons were duly sent to Singapore that year, a further one being added in 1941.

Air Forces in North-Western Australia at the outbreak of war consisted of one General Purpose Squadron located at Darwin. In June, 1940, a Station Head-quarters and an additional squadron were formed and a chain of operational bases was established, providing landing strips, petrol, oil, bombs and ammunition.

In February, 1941, at a conference held at Singapore, the respective spheres of responsibility between the Far East, Netherlands East Indies and Australia were defined. It was also agreed that, in the event of war with Japan, Royal Australian Air Forces would be based in the Netherlands East Indies.

On the outbreak of war with Japan, this agreement was implemented by locating one General Reconnaissance Squadron at Ambon in Ceram, and another at Koepang in Timor. Later, as the weight of the Japanese offensive moved south, a detachment of the Timor Squadron was sent to Namlea in Boeroe to help strengthen the Ceram-Boeroe area.

In mid-January, 1942, operating from bases to the north the Japanese commenced raiding the Ceram-Boeroe group, until finally, towards the end of the month, the approach of a large enemy convoy forced the squadrons to evacuate these bases.

The squadron at Koepang continued operations against the enemy, until a landing in that area became imminent. Towards the end of February this squadron was also withdrawn to Darwin.

The first raid on Darwin occurred on the 19th February, 1942. During 1942, R.A.A.F. strength at Darwin was gradually built up and offensive operations were carried out against enemy bases within striking range. By 1943 medium bombers and long-range fighters were attacking bases and installations in Timor and the Tanimbar Islands, the Kai Islands, the Aroe Islands and on the south coast of Dutch New Guinea. Heavy bombers attacked enemy ports and installations, shipping, and aerodrome installations in Ambon, Ceram, Babo-Kaimana-Monokwari, Sourabaya, Macassar and Batavia, and oil refineries at Balikpapan, Tjoe and Wonokromo. Allied bomber operations in this zone were at their maximum between June, 1943 and April, 1944. Thereafter bomber operations continued, but on a gradually descending scale of intensity as air forces were transferred to the New Guinea theatre to take part in operations to the north-west directed at the Halmaheras and later at Borneo.

In the course of North-Western Area operations allied aircraft destroyed 133 enemy ships and damaged 218. Allied aircraft also destroyed 484 enemy aircraft and probably destroyed some 90 others; 199 enemy aircraft were damaged. Allied total aircraft losses due to enemy action were 111.

(b) *New Guinea.* The main R.A.A.F. effort in the S.W.P.A. was in the New Guinea campaign, which began from Southern Papua and eventually extended over a wide field from Borneo in the West to the Solomons in the East.

At the outbreak of war with Japan there were two R.A.A.F. squadrons in the New Guinea Area. These were flying boat squadrons and their primary role was reconnaissance to provide an outer line of air observation. A composite squadron was soon afterwards sent to Rabaul to provide some measure of local air defence, but the squadron was overwhelmed by intense air attacks which preceded the enemy capture of Rabaul in January, 1942.

The first R.A.A.F. fighter squadron began operations at Port Moresby on 21st March, 1942. So intense was the scale of operations at this time that by 3rd May the squadron was reduced to a total of three aircraft. It had, however, succeeded in destroying 18 enemy aircraft in air combat and a further 17 in ground strafing attacks on Lae aerodrome. Its own losses were 12 pilots and 22 aircraft.

The two flying boat squadrons were withdrawn in May, 1942 to the mainland where they continued their reconnaissance to the north-east from their new base at Bowen, Queensland.

The development of an Allied Air Force base at Milne Bay was begun in June and July, 1942, and two fighter squadrons were established there as an air garrison. These, together with other R.A.A.F. elements in New Guinea, were placed under the operational command of the newly-formed No. 9 Operational Group. The two fighter squadrons, backed by support from air elements at Port Moresby and in co-operation with Australian land forces, contributed largely to the enemy's defeat at, and withdrawal from, Milne Bay.

Supply dropping from the air on a large scale was begun in November, 1942. With this assistance the land forces were able to advance down the northern slopes of the Owen Stanleys. This period marked the first use of R.A.A.F. Attack Squadrons, whose Bostons and Beaufighters began constant harassing attacks on the Japanese lines of communication over the mountains and at their beach-heads in the Buna-Gona area.

During 1943 the Allied air strength steadily increased, enabling direct support to be given to land operations, and the opening of an air offensive against New Britain.

In April, 1943, R.A.A.F. Catalinas began the mining from the air of enemy ports throughout the South-West Pacific Area, a specialized operation which caused the loss of thousands of tons of enemy shipping and supplies, and restricted the use of many harbours. The mining was sustained throughout the remainder of the war, and the Catalinas moved eventually through the Netherlands East Indies and the Philippines to the China Coast.

During the later part of 1943 it became apparent that a mobile task force was needed and in January, 1944 No. 10 Operational Group was therefore formed. The early operations of the group were confined to direct support of the Australian land forces in their drive along the Ramu Valley. During 1944 No. 10 Operational Group took part in the Hollandia, Aitape, Wakde, Biak, Noemfoor, Sansapoor, Amsterdam and Middleburg Island operations, providing fighter cover for the land forces.

Soon after the landing of American land forces at Morotai in September, No. 10 Operational Group was transferred to the operational control of the Commanding General, 13th Air Force, and in October was renamed the 1st Tactical Air Force, R.A.A.F. It then began moving to Morotai where its role became that of destruction of enemy watercraft in the Kai Islands, around Ceram, in the Banda Islands and Macassar Gulf.

During this period the activities of Northern Command, R.A.A.F. (formerly known as No. 6 Operational Group) were confined to the protection of shipping and the support of the Australian land operations in Wewak and New Britain, and the support in conjunction with the R.N.Z.A.F. of Australian land operations in Bougainville.

Apart from airfield construction the R.A.A.F. took no direct part in the Philippines campaign, which began in October, 1944. The R.A.A.F. Task Force was, like Northern Command, carrying out routine patrols. It did not again come into prominence until the launching of the Borneo campaign in the middle of 1945. Preparation for the operations in Borneo began as early as January, 1945. From that date until the assaults were launched, a large concentration of R.A.A.F. was steadily built up in the Morotai

area. Head-quarters, R.A.A.F. Command, which hitherto had controlled R.A.A.F. operations from Brisbane, moved an advanced head-quarters to Morotai to exercise overall air operational control. The operations involved pre-assault air bombardment and general air support for the successive landings at Tarakan on 1st May, at Brunei on 10th June, and at Balikpapan on 1st July. The air forces available consisted of 1st Tactical Air Force, R.A.A.F., the 13th United States Air Force which was placed under the operational control of Head-quarters R.A.A.F. Command, and heavy bombers of North-Western Area. At this time the 1st Tactical Air Force consisted of two Attack Wings, one General Reconnaissance Bomber Wing, three Fighter Wings and an Army Co-operation Wing. This comprised a total of 26 squadrons. After the Brunei assault two R.A.A.F. Fighter Wings and an Attack Wing were established at Labuan in the Brunei zone and subsequently the Head-quarters of 1st Tactical Air Force also was established there. Balikpapan, when captured, was made the base for a heavy bomber wing and a General Reconnaissance Bomber Wing. Very little enemy air opposition was encountered throughout the Borneo operations and allied aircraft were therefore able to give the greatest possible measure of close air support to the Australian land forces.

(c) *Australia, Burma and India.* From the circle of operational bases established on the Australian mainland squadrons kept ceaseless watch over the important shipping lanes, co-operating with the Royal Australian Navy in protecting merchant ships and military convoys.

Although there were no Australian squadrons in name in the Burma-India theatre there were many R.A.F. squadrons with Australian aircrew serving in them. One R.A.F. squadron with over half its aircrew Australians, having reformed in India after the Malayan campaign, attacked the Japanese in Rangoon, dropped food and equipment to troops and carried out many anti-submarine patrols. A number of R.A.F. squadrons in this theatre were commanded by Australians.

§ 4. Personnel, 1939-45 War.

The figures in the table hereunder represent gross enlistments of war service personnel, plus permanent personnel at the beginning of the war, plus gross enlistments in the permanent forces. Particulars for the Navy and Air Force are as at 31st December, 1945, and for the Army as at 28th February, 1946. The term "gross enlistments" indicates that no deductions have been made because of discharges, dead, deserters, etc.

PERSONNEL, 1939-45 WAR : GROSS ENLISTMENTS, ALL SERVICES.

(Thousands).

Service.				Males.	Females.	Persons
Royal Australian Navy	..	..	..	45.8	3.1	48.9
Australian Military Forces	..	..	..	691.4	35.8	727.2
Royal Australian Air Force	..	..	..	189.7	27.2	216.9
Total	..	..	..	926.9	66.1	993.0

§ 5. Casualties, 1939-45 War.

The following table shows the numbers of persons killed, wounded and missing, and of prisoners-of-war escaped, recovered or repatriated in each of the services, classified according to theatre of operations:—

CASUALTIES (a) 1939-45 WAR : ALL SERVICES.

(As at 30th April, 1947.)

Particulars.	Royal Australian Navy.	Australian Military Forces.	Royal Australian Air Force.	All Services.
AGAINST GERMANY.				
Killed (b)	913	3,536	7,095	11,544
Missing .. .. .	..	9	..	9
Prisoners-of-war escaped, recovered or re- patriated	26	7,055	1,012	8,093
Wounded and injured	(c) 26	8,577	1,601	10,204
Total	965	19,177	9,708	29,850

AGAINST JAPAN.

Killed (b)	1,094	15,140	2,911	19,145
Missing .. .. .	..	11	33	44
Prisoners-of-war escaped, recovered or re- patriated	237	13,865	235	14,337
Wounded and injured	(c) 553	13,275	1,630	15,458
Total	1,884	42,291	4,809	48,984

ALL THEATRES OF WAR.

Killed (b)	2,007	(d) 18,676	10,006	30,689
Missing .. .. .	..	20	33	53
Prisoners-of-war escaped, recovered or re- patriated	263	20,920	1,247	22,430
Wounded and injured	(c) 579	(e) 21,852	3,231	25,662
Total	2,849	61,468	14,517	78,834

(a) All casualties except deaths from natural causes. (b) Includes died of wounds, died while prisoner-of-war, and missing, presumed dead. (c) Excludes injured. (d) Excludes 6,041 non-battle deaths. (e) Excludes 149,489 non-battle injuries.

§ 6. Awards and Decorations, 1939-45 War.

The numbers of the various awards and decorations conferred on members of each of the fighting forces for gallantry or other meritorious service during the 1939-45 War appear below :—

AWARDS AND DECORATIONS, 1939-45 WAR : ALL SERVICES.

(As at 31st July, 1946.)

Particulars.	Royal Australian Navy.	Australian Military Forces.	Royal Australian Air Force.	All Services.
Victoria Cross (V.C.) .. .. .	..	17	4	21
George Cross (G.C.)	4	..	..	4
Knight Grand Cross Order of British Empire (G.B.E.) .. .. .	..	1	..	1
Knight Commander Order of Bath (K.C.B.) .. .. .	..	2	..	2
Companion Order of Bath (C.B.)	3	16	6	25
Knight Commander Order of British Empire (K.B.E.) .. .. .	..	4	..	4
Companion Order of St. Michael and St. George	1	..	..	1
Commander Order of British Empire (C.B.E.)	8	77	22	107
Officer Order of British Empire (O.B.E.)	31	170	60	261
Member Order of British Empire (M.B.E.)	42	203	79	324
Knight of Grace of Order of St. John of Jerusalem .. .. .	..	3	..	3
Distinguished Service Order (D.S.O.)	19	150	80	249
Distinguished Service Order, Bar	3	16	4	23
Royal Red Cross (R.R.C.) .. .. .	..	16	3	19
Royal Red Cross (Associate) .. .. .	..	20	4	24
Distinguished Service Cross (D.S.C.)	149	..	..	149
Distinguished Service Cross, Bar	12	..	..	12
Military Cross (M.C.) .. .. .	..	458	14	472
Military Cross, Bar .. .. .	..	14	1	15
Distinguished Flying Cross (D.F.C.)	1	..	2,244	2,245
Distinguished Flying Cross, Bar .. .. .	..	..	138	138
Air Force Cross (A.F.C.) .. .. .	..	..	133	133
Albert Medal	1	..	..	1
Medal for Distinguished Conduct in the Field (D.C.M.) .. .. .	..	187	2	189
Conspicuous Gallantry Medal (C.G.M.)	1	..	11	12
Distinguished Service Medal (D.S.M.)	158	..	..	158
Distinguished Service Medal, Bar	2	..	..	2
Military Medal (M.M.) .. .. .	..	890	6	896
Military Medal, Bar .. .. .	..	5	..	5
Distinguished Flying Medal (D.F.M.) .. .. .	..	..	408	408
Distinguished Flying Medal, Bar .. .. .	..	..	2	2
Air Force Medal (A.F.M.) .. .. .	..	..	16	16
George Medal (G.M.)	9	11	20	40
George Medal, Bar	3	..	..	3
British Empire Medal (B.E.M.)	35	94	52	181
King's Commendation .. .. .	..	8	..	8
Mention in Despatches	598	4,136	1,740	6,474
Commander-in-Chief Cards .. .. .	..	797	..	797
Commendation Cards	11	177	155	343
Foreign Awards	35	64	50	149
Total	1,126	7,536	5,254	13,916

Foreign awards include those of the United States of America, Russia, Greece, Poland, France, Holland, Belgium and Lebanon.

§ 7. Department of Munitions.

1. **General.**—Information regarding munitions production prior to 1925 will be found in Official Year Book No. 18, pp. 612–616, and reference to munitions supply prior to the outbreak of the 1939–45 War is contained in Official Year Book No. 32, p. 241. A statement covering the events leading to the formation of the Department of Munitions on 11th June, 1940, and outlining the functions of the Department and proposed development of production, was issued as a special publication with restricted issue, but was omitted, for security reasons, from Official Year Book No. 33, 1940.

The following is a summary of the main developments in the production of munitions in Australia since the outbreak of war:—

1939.—Prior to the operation of the Supply and Development Act (June, 1939), the Australian supply of munitions was a function of the Defence Department. The functions of the new Department of Supply and Development covered munitions and also other Australian supplies of war material, and it was especially empowered to establish the production of aircraft.

1940.—The Department of Munitions was created as a distinct authority on 11th June, 1940, but without separate general administrative staff or offices. Under the National Security (Munitions) Regulations promulgated on 15th June, 1940, it was vested with control of munitions production (including aircraft). The Regulations also created the position and defined the powers of the Director-General of Munitions.

1941.—The Departments of Supply and Development (later Supply and Shipping) and of Aircraft Production were established on 26th June, 1941 as separate Departments of State under other Ministers, resulting in the complete administrative separation of the Munitions Department from other Supply (including Aircraft). Construction of factories, building of machine tools, and manufacturing of materials were proceeding, and merchant shipbuilding had been inaugurated. Increasing difficulties were being experienced in the import field.

1942.—The production effort was accelerated following the entry of Japan into the war. The movement for the export of munitions abroad, which had developed throughout 1941, was practically abandoned, but Australian demands increased tremendously, and the advent of the United States Armed Forces initiated still more supply problems.

1943.—The production of munitions was still increasing and it was evident that the manufacturing capacity developed was greater than was estimated when the factories were designed. The nature of the fighting indicated new varieties of requirements, and a food production programme was developing.

1944.—The pressure for production of munitions eased considerably through drastic reductions in sections of the requirements programmes of the Australian Armed Services. On the other hand there were greatly increased demands from the Australian and United States Services for particular requirements, of which small craft and radio supplies are outstanding examples. The pressure was increased in respect of agricultural machinery, automotive spare parts, bolts and nuts, refrigerators, internal combustion engines, and engineering supplies in great variety. The net result was that a large overall production still existed under the control of the Department, although employment had decreased substantially, and in general the all-night shift had been abolished.

1945.—The downward trend continued, and was accelerated with the collapse of Germany. The war with Japan was being prosecuted with vigour, and there were still substantial demands for the American and Australian Forces, as well as increasing demands for the British Armed Forces being based upon Australia. Overall there was a general easing of "Controls" because of the greater availability of supplies, and it was possible to release productive capacity for civilian needs. A result was the relaxation of demands upon commercial industry, and concentration of munitions requirements within the Government factories. Large scale transfers of manpower and materials from munitions production to civilian requirements proceeded throughout the year.

2. **Functions of the Department.**—(i) *Manufacture, Acquisition, Provision, and Supply of Munitions and all matters incidental thereto.* This involved (a) operation and management of factories, workshops, and undertakings concerned in the production of

munitions; (b) acquisition by the Commonwealth and the establishment of factories and workshops for the purposes of producing munitions; (c) securing of supplies of materials, plant, tools and equipment for that purpose; (d) employment and training of technicians, workmen and others for that purpose; and (e) the control of the nature and extent of the output or production of any person or authority engaged or capable of being engaged in the production of munitions.

The term "munitions" was defined to include armaments, arms, ammunition, weapons, vehicles, machines or aircraft, the materials necessary for the production of the foregoing, and also such things of whatsoever kind as the Minister by order declared to be munitions. Later, vessels and ships were included in the definition, and upon the creation of the Department of Aircraft Production, aircraft were specifically excluded from the definition.

Direction and control of matters referred to in the foregoing were vested in the Director-General of Munitions.

(ii) *Cost and Profit Control.* Powers and functions relating to arrangements for ascertaining costs and for the control and limitation of profits in relation to the production of munitions were delegated by the Minister to the Director of Finance.

3. *Controls of Materials and Finished Articles.*—The following controls of materials and finished articles, the productive capacity necessary for their production, and salvage and scrap recovery of such controlled articles and materials, were exercised by the Department:—Non-ferrous metals (distribution, special refining for munitions purposes, fabrication); ferrous metals; machine tools; factory equipment, transmission equipment, etc.; ball and roller bearings; electrical machinery; electricity supply; engineers' and precision tools, metal and wood machining tools; hand tools and tools of trade; radio and signal parts and requisites; railway locomotives and rolling stock; industrial chemicals (excluding drugs, and excluding coal products used for fuel or roadmaking); industrial chemicals derived from petroleum; timber and timber substitutes (production and use, articles made for munitions purposes, manufacture and distribution of packing cases for primary and secondary industry and of wooden handles for tools of trade); drugs, medical, surgical and veterinary equipment (subject to the requests of the Medical Equipment Control Committee). Woollen and cotton materials and textiles generally (subject to the predominant interest of the Department of Munitions in artillery textiles) were controlled by the Department of Supply and Shipping.

4. *Organization.*—(i) *General.* The Director-General of Munitions was responsible for direction of the productive effort, which included development of means of production, while the Secretary was concerned with policy and its administrative operation.

(ii) *Powers of the Director-General.* Under the National Security (Munitions) Regulations, the Director-General was empowered to (a) make and vary contracts or agreements; (b) employ such persons as were necessary; (c) direct any contractor with the Commonwealth or any person sub-contracting with such a contractor, as to the manner of carrying out the work for which he contracted or sub-contracted; (d) requisition or acquire compulsorily any property (other than land) which he thought necessary, including exclusive rights or licences and privileges; (e) acquire by purchase any goods or chattels or things in action (including rights in relation to inventions) and (f) sell or otherwise dispose of or turn to account property held in connexion with the manufacture or supply of munitions. He was further authorized to direct priorities in respect of munitions production.

The Director-General was also empowered under the Regulations to incur expenditure, without the prior approval of the Minister, to an amount not exceeding £250,000 at any one time, but it was never necessary to exercise the power.

The Director-General delegated to the Board of Factory Administration authority in regard to the direction, control, operation and management of Government Munitions Establishments.

(iii) *Manufacture.* The manufacturing organization built up operated through the following channels:—Commonwealth Government munitions factories, armament and ammunition annexes, and instrumentalities of the States (e.g. railways) and commercial firms.

Prior to the outbreak of war, and in its early months, provision was made to supplement the output of Government factories by the organization of some 25 annexes attached to commercial factories, erected and equipped on the property of the commercial firm, at the cost either to the Government or the firm concerned, or both, and managed and operated by the firm. State instrumentalities, e.g. Railways, were included in the annexe scheme. The number of these annexes (including sub-factories and other commercial works) increased to 244 during the war, and total funds made available for this development were £17,500,000.

(iv) *Cost of Extensions.* Where the manufacturing requirements for munitions, machine tools, etc., were beyond the resources of the commercial firm, Government assistance might be rendered by the issue of materials, provision of plant on a rental basis, or in the form of a cash advance or a bank guarantee.

(v) *Contracts.* In addition to orders placed under the tender system, contracts might be on a fixed price, cost-plus profit, or "target price" basis. In arranging a "target price" contract, a maximum or "target cost" and a fixed margin of profit were agreed upon. The sum was called the "target price". An incentive towards efficient production was a provision that if the contractor was able to produce at less than the target cost, he received, in addition to the actual cost and the agreed profit margin, a proportion of the saving effected.

(vi) *Directorates and Boards of Area Management.* Leading business men were appointed as Production and Finance Directors, and Boards of Area Management, consisting of business men, trade union representatives and senior State public servants, were established in the various States.

The functions of the production directors and of the Boards of Area Management related to production in annexes and in industrial establishments, but not Government factories. Boards of Area Management were responsible for supervising the carrying out of the munitions production programme allotted to a State, and for co-ordinating the State productive effort.

(vii) *Production Orders and Statistics Directorate.* The operations of this directorate involved the receipt and recording of all orders from the Services, initiation of orders on Government factories, as well as on annexes and outside industry, recording of all statistical information, and the noting of trends of production.

Whilst the directorate had specific responsibilities in regard to production, it acted more as a co-ordinating body than as an individual production unit, and consequently its record was not an individual one, but was interwoven with that of the Department as a whole.

(viii) *Finance Directorate.* The functions of this directorate were to approve of the placing of contracts where public invitation of tenders was dispensed with, to arrange contracts with annexes, to obtain information relating to the costs of contracts placed by the Department, to recommend terms and conditions upon which financial assistance might be given to contractors engaged in the production of munitions, and generally to advise on the financial aspect of matters arising in connexion with the work of the Department.

While it is impracticable to enumerate either the variety or number of transactions which passed through the Directorate, it is sufficient to say they covered virtually every aspect of the activities of the Department insofar as such related to work carried out in the annexes, as well as by contractors.

(ix) *Overseas Procurement.* Between 1941 and 1943 the Department was dependent to a certain extent on specialized equipment and materials available only from the United States through "Lend Lease" arrangements. Its requirements were dealt with through the Office for Australian War Supplies Procurement, Washington, which made the necessary representations through the British Supply Mission.

Requirements under Lend Lease had decreased appreciably by early 1944, and concurrently changes were occurring in the scope of Lend Lease eligibility. In general, only consumable goods were being procured by this time, and capital goods, such as machine tools, were available only on cash purchase. These factors resulted in a great decrease in the value of goods acquired under Lend Lease.

A further revision of 1945 requirements was commenced in June, 1944, at the request of the American authorities. This revision was later extended to include the first quarter of 1946, and confined to items required from North America exclusively. At this stage a major change took place, and what had previously been known as the "Lend Lease Mission to Australia" became the "Foreign Economic Administration Mission to Australia". From this point on, items to be programmed were restricted to a selected list of commodities for which the Foreign Economic Administration Mission to Australia was claimant agency.

(x) *Liquidations Branch.* Pending the establishment of a Commonwealth Authority for the direction of all disposals, towards the end of the financial year 1942-43 a Controller of Liquidations was appointed within the Department of Munitions. The position was later designated Liquidations Manager.

Upon the appointment of the Commonwealth Disposals Commission the following disposals machinery was established within the Department of Munitions under the authority delegated by the Commission to the Secretary of that Department.

Disposal of commodities, other than those for which the Directorate of Machine Tools and Gauges was specifically nominated as the disposing agent, was effected under the general authority of the Central Disposals Committee in Melbourne. To save time a Disposals Committee, Eastern District, was set up under the oversight of the Central Disposals Committee to deal with disposals in New South Wales and Queensland, the Central Committee covering South Australia, Western Australia, and Tasmania, as well as Victoria.

The Directorate of Machine Tools and Gauges was made directly responsible for the disposal of machine tools and allied equipment, hand tools, ball and roller bearings, and electric motors and control equipment.

The central agencies for the processing of disposals are the Liquidations Branch, functioning under the Central Disposals Committee, and the Directorate of Machine Tools and Gauges, through which agencies disposals in Victoria are also processed.

Surpluses in other States are disposed of through the Controller of Munitions in the State concerned under the authority of the Liquidations Manager or the Director of Machine Tools and Gauges.

The total amount realized from disposals of surplus Munitions property during the two years ended 30th June, 1945 was £3,740,441.

5. *Departmental Administration (May, 1946)*—With the relinquishment of his appointment by the Director-General of Munitions on 31st May, 1945, the functions performed by him were assumed by the Minister for Munitions, and the form of departmental administration customary in peace-time was reverted to. The Secretary of the Department, as its Permanent Head, became responsible for its general administration, and the Assistant Director-General reverted to his pre-war appointment as Controller-General of Munitions Supply. The Directorate of Finance was amalgamated with the Finance Branch of the Department under the Assistant Secretary (Finance). The Directorate of Technical Practice was terminated, and the Directorate of Locomotive and Rolling Stock Construction was amalgamated with the Directorate of Small Craft Construction. The Directorates and Controls continuing were:—Gun Ammunition Production, Ordnance Production, Explosives Supply, Radio and Signal Supplies, Small Craft Construction, Machine Tools and Gauges, Materials Supply, Stores and Transport, Production Orders and Statistics, Labour, Electricity Supply, and Timber. Timber Control ceased as a Munitions function in October, 1945.

With the re-organization of the Department on 31st May, 1945, the Boards of Area Management relinquished their appointments, and their functions were transferred more or less to departmental officials with the designation "State Controller of Munitions".

6. **Lands, Buildings and Works.**—The Controller of Lands, Buildings and Works was responsible for the investigation of sites and land acquisition, co-ordination of the buildings and works programme, and the supervision of works construction by commercial industry at Government expense.

The statement following is a summary of projects covering Government Munitions Factories and Establishments, Bulk Stores, Explosives Depots, Sidings, etc., in respect of which construction requisitions were issued through the Controller's office from 30th June, 1939 to 30th June, 1945:—

GOVERNMENT MUNITIONS FACTORIES AND ESTABLISHMENTS, BULK STORES, EXPLOSIVES DEPOTS, SIDINGS, ETC.,—CONSTRUCTION CARRIED OUT 30TH JUNE, 1939 TO 30TH JUNE, 1945.(a)

State.	Number of Projects.	Area.	Expenditure Authorized.	Number of Buildings.	Roads.	Railways.	Tramways.
		Acres.	£'000.		Chains.	Chains.	Chains.
New South Wales ..	27	6,972	12,276	1,402	2,901	2,064	859
Victoria ..	21	4,266	6,509	1,160	2,372	309	652
Queensland ..	4	455	1,192	163	197	56	..
South Australia ..	11	5,397	7,579	1,499	2,602	1,626	1,212
Western Australia	3	140	349	69	111	9	..
Tasmania ..	2	33	410	31	106	15	..
Total ..	68	17,263	28,315	4,324	8,292	4,079	2,723

(a) Excludes armament annexes and additions to commercial establishments financed by the Government and under the control of the various Directorates of the Department of Munitions.

7. **Factory Equipment Section.**—This section commenced operations in July, 1940, and was responsible for the production and procurement of heavy machine tools and manufacturing equipment. The task necessitated the organization of engineering firms ordinarily engaged in building rough, heavy plant for mining and steel industries, structural engineering, etc., for the production of heavy but high grade precision equipment. Operations covered practically the whole of Australia, including not only the capital cities, but points as far distant as Kalgoorlie, Western Australia, and Mackay, Queensland.

All States co-operated in the construction of large new plant for additions to the Ammunition Factory, Footscray, as well as complete ammunition factory plant and equipment for Finsbury, South Australia, Rutherford, New South Wales, Rocklea, Queensland, and Derwent Park, Tasmania. Production of small arms was assisted by the manufacture of gauges, jigs, and fixtures for general development of this type of work. The design and manufacture of medium and heavy machine tools for ordnance were carried out by distributing the manufacture of components over all States.

For the production of aircraft, two hydraulic blanking and forming presses of 3,000 tons capacity were designed and manufactured complete with pumps and electrical equipment, also one 600,000-lb. testing machine and large plywood hot press. Machines designed and manufactured for the Captain Cook Graving Dock, Sydney, included 200-ton and 600-ton hydraulic flanging presses. Six large special milling machines were designed and manufactured for machining cruiser tank hulls in one setting, as well as four boring and facing machines for transmission.

About 160 overhead travelling 3-motor electric travelling cranes were made for ammunition and ordnance factories, munitions stores and annexes. Capacity ranged from 5 to 75 tons. Five 80-ton floating cranes were also designed and manufactured, two being supplied to the British Admiralty and three to the United States Armed Forces in the Pacific Operational Area.

Complete rolling mills and equipment were made for the aluminium fabrication factory at Wangaratta, Victoria, and special foundations, etc., for a 35,000-lb. drop hammer for the forging annexe at Granville, New South Wales, controlled by the Australian Aluminium Co. Pty. Ltd. Over 12,000 items of earth-moving equipment were produced for the Allied Works Council, including 1,300 bulldozers, 1,700 scrapers, 2,200 power control units, 1,500 mobile cranes, 1,100 winches, and lesser quantities of numerous other types of equipment. Production of railway equipment included 300 complete 3 ft. 6 in. gauge wagons, 200 underframes, 1,000 sets of wheels and axles, and over 900 sets of Westinghouse brake equipment.

8. Munitions Output.—The following is a statement of production of the principal items of munitions from 1st June, 1940 to 30th June, 1945.

It has been impossible to include, from considerations of space, full details of all equipment produced. In addition to the items of munitions proper, a large programme of agricultural and food processing equipment was met—in the two years ended 30th June, 1945 approximately 348,000 units of agricultural implements were produced.

MUNITIONS OUTPUT—PRINCIPAL ITEMS PRODUCED FROM 1ST JUNE, 1940 TO 30TH JUNE, 1945.

Item.	Production.	Item.	Production.
Ammunition—	Rounds.	Engineering Equipment—<i>cont'd.</i>	Number.
Small Arms	1,845,000,000	Cookers	1,747
Light Anti-Aircraft	3,784,605	Box Girder Bridges	143
Heavy Anti-Aircraft	575,222	Engines	35,906
Light Artillery	1,521,411	"Barblock" Wire (concertinas)	511,621
Medium Artillery	8,021,850	Trailers	11,387
Heavy Artillery	131,725		Sq. yds.
	Number.	Fabric Mesh	3,975,600
Mortar Bombs	3,993,011	Armoured Fighting Vehicles—	Number.
Grenades	5,521,594	Carriers, Machine Gun, etc. ..	5,583
Aircraft Bombs—Practice ..	1,840,710	Armoured Cars—Light ..	237
Aircraft Bombs—Service ..	147,718	Tanks, 30-ton	65
Mines—Naval	12,336		Units.
Land	750,098	Refrigeration	
Weapons—		Field (up to 10 c. ft.) ..	10,146
Sub-Machine Guns—Austen ..	19,914	Medium (up to 30 c. ft.) ..	987
Owen	45,433	Heavy (up to 20,000 c. ft.) ..	8,216
Bren Guns and Mountings ..	17,336	Radio Equipment—	
Vickers Guns and Mountings ..	11,316	Radio Transmitters	12,280
Rifles	408,050	Radio Receivers	9,204
Signal Pistols	25,392	Transmitter Receivers ..	18,460
Mortars, 2", 3" and 4.2" ..	5,306	Radar Equipment—	
Hispano and Polsten Cannon,		R.A.A.F. Land bases air warn-	
20 mm.	1,864	ing equipment	201
Bofors Guns, 40 mm.	290	R.A.A.F. Air-borne Equipment	
Anti-Aircraft Guns, 3" and 3.7" ..	512	for location of surface vessels	
Tank Attack Guns—2-pdr. ..	1,580	and homing purposes ..	1,126
6-pdr.	900	R.A.A.F. Radar Beacons for	
17-pdr.	326	use on Aerodromes	224
25-Pdr. Guns	1,912	Naval Sea-borne ship-warning	
4" Naval Guns	266	and aircraft-warning equip-	
Optical Instruments—		ments	374
Telescopes	1,172	Army Radar Controller Search-	
Directors	639	lights	65
Clinometers	9,078	Army Radar Portable Beach	
Compasses	55,756	Watching and Coastal De-	
Electrical Equipment—		fence Sets	49
Projectors and Searchlights ..	1,490	Army Coastal Artillery and	
Generating and Charging Sets ..	10,973	Shore Defence Equipment ..	37
Signalling Lamps	34,710	General Radar Test Equipment	9,085
Cable Layers	29,919	Signal Equipment—	
Field Cable	199,612	Telephones	100,000
Engineering Equipment—	Number.	Switchboards	9,000
Winches	3,574	Steel Poles	150,000
Pumps	3,989	Test Equipments	16,200
Air Compressors	2,176	Small Craft—	
Portable Filters	1,369	Powered Vessels	1,675
		Non-Powered Vessels ..	4,049
		Pontoons, Life Rafts, etc. ..	21,917

9. **Government Munitions Factories and Establishments.**—(i) *Administration.* The Commonwealth Government munitions factories and establishments are administered by the Board of Factory Administration, whose functions are defined by Administration Regulations (Statutory Rule No. 97 of 1939). The constitution of the Board includes the Controller-General of Munitions Supply, who acts as Chairman, five officers of the Department, a Consultant on Explosives, and a Secretary.

(ii) *Factories and Establishments.* The munitions production effort in Australia was developed upon the Government factories and establishments, which prior to the war consisted of the Ammunition Factory, Footscray, Victoria (until 1921, Colonial Ammunition Co. Ltd.), which commenced operations in 1888, and—with year of commencement in parenthesis—the Explosives Factory, Maribyrnong, Victoria (1911); the Ordnance Factory, Maribyrnong, Victoria (1925); the Small Arms Factory, Lithgow, New South Wales (1912); and the Munitions Laboratories, Maribyrnong, Victoria (preceded by Defence Laboratory 1907–1920) (1921). The capital investment in these establishments on 30th June, 1938 was £1,253,617 in land and buildings, and £1,721,672 in plant.

In the years immediately preceding 1939 a moderate programme of expansion of these factories was being developed, and new units for production of naval cordite and small arms ammunition were authorized, the amount allocated being £2,500,000. During the first year of the war an additional £3,000,000 was authorized for extensions to the Government factories and establishments, including an additional small arms ammunition factory at a site selected subsequently at Hendon, South Australia. From April, 1940 until the close of hostilities, a further £49,000,000 was allocated for expansion of the original establishments and construction of new ones.

The urgent need for weapons and ammunition impelled concentration upon the establishment of large scale production units during the earlier period of war-time development. Because of labour requirements these were located near large cities, but later, attention was directed to the utilization of the resources and manpower available in the smaller towns. As the first outcome of this policy of decentralization—the institution of “feeder” factories at Bathurst and Orange, New South Wales, in association with the parent Small Arms Factory at Lithgow—proved successful a wider dispersal of production units was sought throughout the various States.

Consideration was given in the case of gun ammunition factories to the locality where the empty components would be filled with the explosive. The factories in Victoria, for instance, were placed between the filling factories at Maribyrnong, Victoria, and Salisbury, South Australia, so that if one or other of these places was bombed, the empty components could be shipped to the alternative establishment.

The gunpaper factory was placed in Ballarat, Victoria, mainly because of the pure water supply there, but also because it had to be located on the Adelaide–Melbourne line in order to feed both the Victorian and South Australian factories.

The explosives factory at Mulwala, Victoria is excellently situated because of the water supply in the Murray, and because it can feed alternatively the Victorian and New South Wales explosives and filling factories. The ordnance factory was placed at Bendigo, Victoria, because it had to be close to the Melbourne Ordnance Factory for technical management reasons, and so that it could draw the heavy forgings from the Melbourne Ordnance Factory or from the forging annexe at Castlemaine. The factory at Echuca, Victoria was supplied with raw materials from Bendigo, and is within a reasonable distance of that centre.

By June, 1943, the peak of munitions activity, 47 factories had been authorized to be established, operated directly by the Department under the administrative direction of the Board of Factory Administration, but two (located at Swan Hill, Victoria, and Katoomba, New South Wales) were never completely equipped. The following is a

list of the 45 which operated, together with the Drawing Office and ancillary Stores and Transport Branches, showing peak capital valuations disclosed in annual balance-sheets to 30th June, 1945:—

GOVERNMENT MUNITIONS FACTORIES AND ESTABLISHMENTS—PEAK CAPITAL VALUATIONS TO 30TH JUNE, 1945.

Establishment.	Land.	Buildings and Works.	Plant and Equipment.	Total.
<i>New South Wales.</i>				
<i>Ammunition Factories—</i>	£	£	£	£
Rutherford	17,553	731,813	1,036,123	1,785,489
Goulburn	719	108,752	252,628	362,099
Albury	3,860	35,088	56,469	95,417
Wagga Wagga	971	43,369	59,997	104,337
Broken Hill	64,669	73,428	138,097	276,194
Tamworth	612	35,444	44,166	80,222
Hay	8,970	15,533	26,249	50,752
<i>Explosives and Filling Factories—</i>				
St. Mary's	33,085	4,430,903	897,885	5,361,873
Villawood	34,506	1,393,696	919,199	2,347,401
Mulwala	702	1,915,396	1,531,688	3,447,786
<i>Small Arms Factories—</i>				
Lithgow	7,212	857,362	2,419,873	3,284,447
Bathurst	100	201,061	304,111	505,272
Orange	4,367	335,209	602,261	941,837
Forbes	6,004	39,266	23,049	68,319
Wellington	1,850	19,274	22,022	43,146
Mudgee	429	13,936	1,082	15,447
Cowra	2,025	2,025	3,380	5,405
Young	1,640	31,621	530	33,791
Dubbo	26,460	26,460	713	27,173
Parkes	1,086	23,305	702	25,093
Portland	482	41,572	42,410	84,464
<i>Stores and Transport Branches—</i>				
Sydney	2,484	837,658	264,126	1,104,268
Oaklands	2,701	339,106	36,981	378,788
Sub-Total	129,333	11,542,518	8,619,072	20,290,923
<i>Victoria.</i>				
<i>Ammunition Factories—</i>				
Footscray	17,849	1,027,166	2,561,046	3,606,061
Mildura .. .. .	..	..	38,508	38,508
<i>Explosives and Filling Factories—</i>				
Maribyrnong	49,289	1,732,838	1,688,809	3,470,936
Ballarat	6,669	316,088	873,389	1,196,146
<i>Ordinance Factories—</i>				
Maribyrnong	5,956	1,179,286	3,721,623	4,906,865
Bendigo	19,187	624,550	1,707,729	2,349,466
Echuca	2,031	102,101	181,832	285,964
Horsham	1,531	22,628	51,674	75,833
Stawell	210	22,617	536	23,363
Hamilton	750	15,409	17,132	33,291
<i>Laboratories and Chemical Defence Factory, Maribyrnong</i>	144	242,305	402,224	644,673
<i>Central Drawing Office, Maribyrnong</i>	930	51,788	26,270	78,988
<i>Stores and Transport Branch</i>	31,931	850,450	399,178	1,281,559
Sub-Total	136,477	6,185,226	11,669,950	17,991,653
<i>Queensland.</i>				
<i>Ammunition Factory, Rocklea</i>	6,975	737,716	1,103,657	1,848,348
<i>Stores and Transport Branch</i>	..	51,931	13,495	65,426
Sub-Total	6,975	789,647	1,117,152	1,913,774
<i>South Australia.</i>				
<i>Ammunition Factories—</i>				
Finsbury	22,023	1,026,148	2,660,953	3,709,124
Hendon	5,126	267,157	461,180	733,463
Port Pirie .. .. .	..	32,694	153,348	186,042
Clare .. .. .	..	3,195	33,026	36,221
Kapunda .. .. .	..	4,373	14,559	18,932
Moonta .. .. .	..	4,223	16,648	20,873
Mt. Gambier .. .. .	..	3,435	25,600	29,035
Murray Bridge .. .. .	..	6,656	29,395	36,051
<i>Explosives and Filling Factory, Salisbury</i>	49,932	5,071,464	2,069,219	7,190,615
<i>Stores and Transport Branch</i>	33,631	587,737	64,662	686,030
Sub-Total	110,712	7,007,084	5,528,590	12,646,386

GOVERNMENT MUNITIONS FACTORIES AND ESTABLISHMENTS—PEAK
CAPITAL VALUATIONS TO 30TH JUNE, 1945—*continued.*

Establishment.	Land.	Buildings and Works.	Plant and Equipment.	Total.
<i>Western Australia.</i>	£	£	£	£
Ammunition Factories—				
Welshpool.. .. .	9,016	267,680	360,934	637,630
Kalgoorlie.. .. .	7	17,232	57,135	74,374
Stores and Transport Branch	656	54,809	23,175	78,640
Sub-Total	9,679	339,721	441,244	790,644
<i>Tasmania.</i>				
Ammunition Factory, Derwent Park	8,728	344,519	589,135	942,382
Stores and Transport Branch	1,106	34,106	6,862	42,074
Sub-Total	9,834	378,625	595,997	984,456
Total	403,010	26,242,821	27,972,005	54,617,836

The number of factories in operation in each State on 30th June of each of the years 1939 to 1945 was as follows :—

GOVERNMENT MUNITIONS FACTORIES IN OPERATION.

State.	At 30th June—						
	1939.	1940.	1941.	1942.	1943.	1944.	1945.
New South Wales..	1	1	1	5	18	16	8
Victoria.. .. .	4	4	4	6	7	8	7
Queensland .. .. .	..	..	..	1	1	..	..
South Australia .. .. .	..	..	2	3	4	9	6
Western Australia .. .. .	..	..	..	1	1	2	2
Tasmania .. .. .	..	..	..	1	1	1	..
Total	5	5	7	17	32	30	23

(iii) *Production.* Apart from the large share taken in the production of guns and the metal components of gun ammunition, the Government factories were the sole producers of rifles and machine guns (except the Owen sub-machine gun), small arms ammunition, explosives, brass cartridge cases for gun ammunition, and the sole units engaged in the filling and assembling of gun ammunition.

(iv) *Munitions Supply Laboratories—(a) General.* Established at Maribyrnong, Victoria, the laboratories carry out—or supervise the carrying out by approved test houses of—the specification laboratory tests on all munitions produced in Government and private factories, as submitted to the Inspection Branches of Navy, Army and Air for sentence before being passed to those Services.

Other functions are to assist Government factories, annexes, and departmental contractors with advice in the development of manufacture, and to be responsible for the maintenance of accuracy of instruments of various classes used to control manufacture.

Apparatus and equipment installed is valued at more than £400,000. The establishment is divided into specialist laboratory sections as described hereunder.

(b) *Metrology.* This section is responsible for the maintenance of standards of length for the manufacture of munitions in Australia. The basic standards are two one-yard end bars, the lengths of which have been certified by the National Physical Laboratory, England, to an accuracy of one part in a million.

(c) *Engineering.* Mechanical tests on a wide range of material are conducted by this section, the machines installed being suitable for testing metals, rubber, leather, timber, glues and cements, plastics, wire, wire rope and cordage, as well as articles such as springs, both coiled and plate, insulators, welded joints and completed fittings. Equipment is also held for a variety of miscellaneous tests, such as calibration of pressure gauges.

(d) *Physics.* The laboratories are equipped for investigational and testing work in optics, electronics, electricity and magnetism, heat and thermometry, and other branches of general physics. Work performed includes testing of materials and components such as optical glass, lenses, aircraft cables, insulating materials and resistors, and of instruments such as optical, electrical and thermometry apparatus.

There are three experimental workshops, namely, the precision machining, fitting and optical adjustment shop, the fine instrument shop and the glass-working shop, which are primarily devoted to the construction and servicing of industrial and scientific equipment and instruments.

(e) *Metallurgy.* The Metallurgy Section is equipped to deal with both the ferrous and non-ferrous branches of secondary metallurgy. There is a full range of equipment for the study of the hardness and microstructure of metals, studies which are fundamental to casting, mechanical working and heat-treatment operations.

(f) *General Chemistry.* The chemical aspects of all materials other than explosives, metals, and materials used in chemical warfare, are dealt with in this section. The range includes lubricants of all types used in industry, fuels, rubber materials, leather, clothing materials, textiles and papers, aviation fabrics and parachute silks, aircraft dopes and lacquers, and paints and varnishes for a wide variety of purposes.

(g) *Explosives and Ammunition.* The section is equipped for a wide range of specialized tests on explosives and pyrotechnic stores, and on the raw materials used in their manufacture.

(h) *Chemical Defence.* The Chemical Defence Section is concerned with chemical warfare from both the defensive and offensive points of view, and has laboratory facilities for both chemical and physical investigations.

(i) *Timber.* Several small kilns are operated by the section for seasoning and conditioning work, and it carries out specification tests on timbers, glues and cements used in Defence stores.

(j) *Technical Information.* This is the scientific information centre of the Department, its resources including a library of technical books and journals on related scientific subjects.

(k) *Approved Test House.* Approximately 150 test houses, scattered throughout the Commonwealth, and designed to carry out specified types of testing work, were investigated and approved over the war years, so as to relieve the pressure upon the central establishment.

(v) *Chemical Defence Board.* This is an inter-Services body on which the three fighting Services and the Department are represented, the President being the Controller-General of Munitions, and the Secretary to the Board the Controller of Chemical Defence. The Board acts as a co-ordinating and advisory body on matters concerning chemical warfare, and controls investigational work on the subject.

(vi) *Stores and Transport Directorate.*—(a) *General.* The Directorate controlled the warehousing and movement by rail, road or sea of munitions materials and products, as well as the storage and movement of materials and products for other Commonwealth Government departments.

(b) *Stores.* In 1940 the Stores and Transport organization controlled an area of 22 acres at Maribyrnong, Victoria on which were erected two bulk stores of 40,000 square feet each, and a third bulk store of 50,000 square feet was under construction on the area. In addition, there was 50,000 square feet of hired accommodation. At the peak of munitions production, in 1943, the Directorate controlled 4,750,000 square feet of Government and hired covered storage space, while 350 acres of open land were hired for open storage.

Large magazine depots were established at Smithfield, South Australia; St. Mary's, New South Wales; and Longlea, Victoria. These depots, together with the original Derrimut depot, covered 4,800 acres, and provided accommodation for 15,000 tons of explosives.

A special explosives rail siding at Deer Park, Victoria, completed a comprehensive constructional programme for the storage of goods.

At the peak of munitions production the Government storage accommodation in Australia comprised 650 buildings, erected on 6,500 acres, and provided 3,632,690 square feet of covered storage accommodation distributed amongst the States as follows:—New South Wales, 1,474,710 square feet; Victoria, 1,068,760 square feet; Queensland, 115,600 square feet; South Australia, 848,500 square feet; Western Australia, 77,120 square feet; and Tasmania, 48,000 square feet. There was capacity for the storage of 15,045 tons of explosives distributed as follows: New South Wales, 3,302; Victoria, 7,193; South Australia, 4,400; and Western Australia, 150 tons.

The hired accommodation comprised 300 private stores, which were hired under National Security Regulations.

(c) *Transport*.—From 64 road vehicles operating in 1940 the plant increased to 1,182 at the peak, comprising 149 horse and 1,033 motor units. The largest increase was in 1942, when 630 motor vehicles were purchased.

On 30th June, 1945, the directorate throughout Australia operated 878 motor vehicles, 252 trailers, 60 horse-drawn vehicles, 58 horses, 60 mobile cranes and Fork trucks from one to twenty tons capacity.

This fleet travelled approximately 25,000,000 miles, and hauled over 8,000,000 tons of munitions, materials, and products.

(vii) *Value of Munitions Production*. The following figures of value of output of the Government munitions establishments cover not only production connected with the fulfilment of Service orders for munitions, but also the manufacture of equipment such as tools and gauges for use within the factories, as well as work performed on capital account, e.g., manufacture of machine tools, plant installation costs, and minor construction work. As far as the Munitions Supply Laboratories are concerned, the figures cover expenditure connected with the scientific functions of the establishments, as well as costs of production of respirators, and repair, reconditioning and servicing of instruments.

VALUE OF OUTPUT OF GOVERNMENT MUNITIONS FACTORIES FROM 1st JULY, 1939 TO 30th JUNE, 1945.

(Subject to revision.)

Year.	Ammunition.	Explosives.	Ordnance.	Small Arms.	Munitions Laboratories.	Total.
	£	£	£	£	£	£
1939-40	1,501,494	729,046	846,999	404,154	192,895	3,674,588
1940-41	4,193,072	1,897,082	2,031,936	1,526,073	494,632	10,142,795
1941-42	9,008,730	5,554,303	3,940,818	3,020,951	860,904	22,384,806
1942-43	12,078,796	9,600,959	5,246,283	5,435,689	903,296	33,265,023
1943-44	8,118,014	7,563,661	4,371,837	4,974,295	536,196	25,564,003
1944-45	4,681,833	3,871,091	1,805,292	3,287,698	52,911	13,698,825
Total	39,581,939	29,216,142	18,243,165	18,647,960	3,040,834	108,730,040

(viii) *Employment*. Employment in administrative sections of the Munitions Department, and at munitions factories and establishments at the 30th June, 1939 to 1945 was as follows. The figures for Administrative Offices cover staffs of the Central Administration and Directorates in all States, and the staffs of the Boards of Area

Management. The administrative staffs of the Government Factories are included with the wages personnel under the appropriate production heading. The table illustrates the entry of female labour into the Government Munitions Factories, and shows the extension of the Government Factories into the rural areas.

EMPLOYMENT IN ADMINISTRATIVE SECTIONS OF DEPARTMENT OF MUNITIONS AND AT MUNITIONS FACTORIES AND ESTABLISHMENTS.

Particulars.	At 30th June—						
	1939.	1940.	1941.	1942.	1943.	1944.	1945.
MALES.							
ADMINISTRATIVE OFFICES.							
Australian Capital Territory .. ..	..	3	3	5	5	..	..
New South Wales .. ..	..	..	220	663	922	947	888
Victoria	12	196	700	1,302	1,962	1,377	1,142
Queensland .. ..	..	..	10	32	68	91	91
South Australia .. ..	..	..	30	66	101	94	82
Western Australia .. ..	..	..	7	32	50	51	40
Tasmania .. ..	..	..	1	7	10	13	9
Total	12	199	980	2,107	3,118	2,573	2,252
MUNITIONS FACTORIES AND ESTABLISHMENTS.							
<i>New South Wales.</i>							
Metropolitan—	..	..	..	..	..	..	..
Explosives and Filling Factories—	..	..	..	..	703	844	889
St. Marys .. ..	..	..	..	..	223	192	70
Willwood .. ..	..	..	29	213	579	633	559
Stores and Transport Branch .. ..	..	..	..	..	..	..	..
Total Metropolitan .. ..	..	..	29	213	1,505	1,669	1,518
Country—	..	..	..	..	..	..	..
Ammunition Factories—	..	..	..	..	..	..	..
Rutherford .. ..	..	..	..	86	408	362	32
Goulburn .. ..	..	..	..	13	127	103	197
Albury .. ..	..	..	..	10	72	3	..
Wagga Wagga .. ..	..	..	..	8	81	2	..
Broken Hill .. ..	..	..	..	..	43	62	50
Tamworth .. ..	..	..	..	..	32	..	..
Ray .. ..	..	..	..	..	..	18	..
Explosives Factory, Mulwala .. ..	..	..	..	..	277	316	201
Small Arms Factories—	..	..	..	..	..	..	..
Lithgow	532	1,961	4,044	4,437	3,517	2,063	1,552
Bathurst .. ..	..	..	..	1,264	1,000	395	331
Orange .. ..	..	..	..	1,251	1,344	580	490
Forbes .. ..	..	..	..	146	139	81	..
Wellington .. ..	..	..	..	..	152	74	..
Mudgee .. ..	..	..	..	79	133	49	..
Cowra .. ..	..	..	..	..	74	43	..
Young .. ..	..	..	..	..	94	..	..
Dubbo .. ..	..	..	..	..	73	33	..
Parramatta .. ..	..	..	..	..	75	75	..
Portland .. ..	..	..	..	..	..	118	66
Stores and Transport Branch, Portland .. ..	..	..	..	..	52	65	64
Total Country	532	1,961	4,044	7,294	7,693	4,441	2,991
Total New South Wales	532	1,961	4,073	7,507	9,198	6,110	4,509
<i>Victoria.</i>							
Metropolitan—	..	..	..	..	..	..	..
Ammunition Factory, Footscray	1,429	3,523	5,252	4,722	3,101	1,758	1,514
Explosives and Filling Factory, Maribyrnong	1,071	1,926	3,764	4,935	3,093	1,772	1,358
Ordnance and Projectile Factory, Maribyrnong	1,157	2,400	3,555	4,964	4,817	3,235	2,835
Laboratories and Respirator Assembly, Maribyrnong	175	318	542	772	584	550	509
Central Drawing Office, Maribyrnong	65	82	131	180	172	127	111
Stores and Transport Branch	52	105	252	830	1,231	927	811
Total Metropolitan	3,949	8,354	13,496	16,403	12,908	8,369	7,138

EMPLOYMENT IN ADMINISTRATIVE SECTIONS OF DEPARTMENT OF
MUNITIONS AND AT MUNITIONS FACTORIES AND ESTABLISHMENTS
—continued.

At 30th June—

Particulars.	1939.	1940.	1941.	1942.	1943.	1944.	1945.
MALES—continued.							
MUNITIONS FACTORIES AND ESTABLISHMENTS—continued.							
Victoria—continued.							
Country—							
Ammunition Factory, Mildura	22	20	..
Explosives Factory, Ballarat	577	524	191	73
Ordnance, Projectile and Ball Bearings Factories—							
Benalla	156	930	313	645
Echuca	66	112
Horsham	71	82
Stawell	(a)	..
Hamilton	15	..
Total Country	733	1,482	1,076	914
Total Victoria	3,949	8,354	13,496	14,390	9,445	8,052
Queensland.							
Metropolitan—							
Ammunition Factory, Rocklea	842	1,054	4	..
Stores and Transport Branch	4	25	37	48	50
Total Queensland	4	867	1,091	52	50
South Australia.							
Metropolitan—							
Ammunition Factories—							
Finsbury	797	3,897	2,555	1,262	1,063
Hendon	575	783	691	416	261
Explosives and Filling Factory, Salisbury	1,269	2,546	1,205	895
Stores and Transport Branch	30	240	401	398	324
Total Metropolitan	1,402	6,189	6,193	3,281	2,543
Country—							
Ammunition Factories—							
Port Pirie	165	120	63
Clare	24	18
Rangona	11	..
Moonta	24	26
Mount Gambier	24	..
Murray Bridge	27	..
Total Country	168	233	103
Total South Australia	1,402	6,189	6,361	3,514	2,646
Western Australia.							
Metropolitan—							
Ammunition Factory, Welshpool	59	656	814	610
Stores and Transport Branch	1	29	56	72	79
Total Metropolitan	1	88	712	886	689
Country—							
Ammunition Factory, Kalgoorlie	12	69	48
Total Western Australia	1	88	724	955	737
Tasmania.							
Metropolitan—							
Ammunition Factory, Derwent Park	186	427	278	52
Stores and Transport Branch	19	14	11
Total Tasmania	186	446	292	93

(a) Ceased before June, 1944.

EMPLOYMENT IN ADMINISTRATIVE SECTIONS OF DEPARTMENT OF
MUNITIONS AND AT MUNITIONS FACTORIES AND ESTABLISHMENTS
—continued.

		At 30th June—						
Particulars.		1939.	1940.	1941.	1942.	1943.	1944.	1945.
MALES—continued.								
MUNITIONS FACTORIES AND ESTABLISHMENTS—continued.								
GRAND TOTALS—								
Administrative Offices ..	12	199	980	2,107	3,118	2,573	2,252	
Munitions Factories and Estab-								
lishments—								
Metropolitan	3,949	8,354	14,932	23,946	22,855	14,549	12,031	
Country	532	1,961	4,044	8,027	9,355	5,819	4,056	
Total	4,481	10,315	18,976	31,973	32,210	20,368	16,087	
TOTAL MALES—AUSTRALIA	4,493	10,514	19,956	34,080	35,328	22,941	18,339	

FEMALES.

ADMINISTRATIVE OFFICES.								
Australian Capital Territory ..	2	2	4	6	..	..	..
New South Wales .. ..	..	82	404	807	921	812	..	
Victoria	6	92	389	1,109	1,723	1,396	..	
Queensland .. ..	..	4	13	48	63	55	..	
South Australia .. ..	..	12	68	101	110	84	..	
Western Australia .. ..	..	4	12	42	45	41	..	
Tasmania .. ..	..	..	7	12	16	15	..	
Total	6	94	493	1,617	3,115	2,880	2,403	
New South Wales.								
Metropolitan—								
Explosives and Filling Factories—								
St. Marys .. ..	..	..	..	1,220	1,268	1,165	..	
Willoughby .. ..	..	..	..	64	105	15	..	
Stores and Transport Branch ..	..	3	29	195	207	198	..	
Total Metropolitan .. ..	..	3	29	1,479	1,580	1,378	..	
Country—								
Ammunition Factories—								
Rutherford .. ..	..	..	25	302	297	23	..	
Goulburn .. ..	..	..	4	126	145	185	..	
Albury .. ..	..	..	2	199	2	..	..
Wagga Wagga .. ..	..	..	4	172	3	..	..
Broken Hill .. ..	..	..	..	189	226	194	..	
Tamworth .. ..	..	..	..	51	..	..	..
Hay .. ..	..	..	..	..	63	..	..
Explosives Factory, Mulwala ..	..	..	..	33	89	33	..	
Small Arms Factories—								
Lithgow	4	30	54	621	1,963	687	117	
Bathurst .. ..	..	..	..	336	576	306	165	
Orange .. ..	..	..	..	88	1,012	431	273	
Forbes .. ..	..	..	..	85	117	68	..	
Wellington .. ..	..	..	..	..	216	98	..	
Mudgee .. ..	..	..	..	106	167	33	..	
Cowra .. ..	..	..	..	..	172	41	..	
Young .. ..	..	..	..	..	174	..	..
Mubbo .. ..	..	..	..	..	55	3	..	
Castlereagh .. ..	..	..	..	..	52	13	..	
Portland .. ..	..	..	..	..	..	71	2	
Stores and Transport Branch,								
Oaklands .. ..	..	..	..	..	6	5	2	
Total Country	4	30	54	1,271	5,582	2,581	994	
Total New South Wales	4	30	57	1,300	7,061	4,161	2,372	

EMPLOYMENT IN ADMINISTRATIVE SECTIONS OF DEPARTMENT OF
MUNITIONS AND AT MUNITIONS FACTORIES AND ESTABLISHMENTS
—continued.

At 30th June—

Particulars.

1939. 1940. 1941. 1942. 1943. 1944. 1945.

FEMALES—continued.

MUNITIONS FACTORIES AND ESTABLISHMENTS.							
Victoria.							
Metropolitan—							
Ammunition Factory, Footscray	487	1,403	2,523	4,589	2,757	1,076	709
Explosives and Filling Factory, Maribyrnong	15	46	1,113	3,197	2,390	1,324	943
Ordnance and Projectile Factory, Maribyrnong	28	70	173	535	1,157	712	570
Laboratories and Respirator Assembly, Maribyrnong	17	48	365	480	572	450	366
Central Drawing Office, Maribyrnong	21	32	43	78	88	83	63
Stores and Transport Branch	2	7	21	96	268	210	133
Total Metropolitan	570	1,612	4,238	8,975	7,232	3,855	2,784
Country—							
Ammunition Factory, Mildura	..	..	..	..	14	46	..
Explosives Factory, Ballarat	..	..	..	49	152	34	16
Ordnance, Projectile and Ball Bearings Factories—							
Ben-zio	..	..	..	55	247	214	141
Echuca	..	..	..	..	..	14	25
Horsham	..	..	..	..	..	9	1
Stawell	..	..	..	..	..	(a)	..
Hamilton	..	..	..	..	..	7	..
Total Country	..	..	..	104	413	324	183
Total Victoria	570	1,612	4,238	9,079	7,645	4,179	2,967
Queensland.							
Metropolitan—							
Ammunition Factory, Rocklea	..	..	..	840	1,492	5	..
Stores and Transport Branch	..	..	1	3	5	7	9
Total Queensland	..	..	1	843	1,497	12	9
South Australia.							
Metropolitan—							
Ammunition Factories—							
Finbury	..	..	29	1,449	237	352	332
Hendon	..	..	1,428	1,929	1,810	779	296
Explosives and Filling Factory, Salisbury	..	..	..	1,512	2,465	986	924
Stores and Transport Branch	..	..	3	46	127	129	71
Total Metropolitan	..	..	1,460	4,936	4,639	2,246	1,623
Country—							
Ammunition Factories—							
Port Pirie	..	..	..	..	150	78	48
Clare	..	..	..	..	..	21	17
Quomda	..	..	..	..	..	14	..
Mount Gambier	..	..	..	..	..	14	18
Murray Bridge	..	..	..	..	..	30	..
Total Country	..	..	..	..	150	170	83
Total South Australia	..	..	1,460	4,936	4,789	2,422	1,706
Western Australia.							
Metropolitan—							
Ammunition Factory, Welshpool	..	..	..	58	1,244	892	522
Stores and Transport Branch	..	..	..	3	12	13	19
Total Metropolitan	..	..	..	61	1,256	905	541

(a) Ceased before June, 1944.

EMPLOYMENT IN ADMINISTRATIVE SECTIONS OF DEPARTMENT OF
MUNITIONS AND AT MUNITIONS FACTORIES AND ESTABLISHMENTS
—continued.

Particulars.	At 30th June—						
	1939.	1940.	1941.	1942.	1943.	1944.	1945.
FEMALES—continued.							
MUNITIONS FACTORIES AND ESTABLISHMENTS—continued.							
Western Australia—continued.							
Country—							
Ammunition Factory, Kalgoorlie ..	..	..	..	..	2	121	44
Total Western Australia ..	..	..	..	61	1,258	1,016	585
Tasmania.							
Metropolitan—							
Ammunition Factory, Derwent Park ..	..	..	..	26	291	241	13
Stores and Transport Branch ..	..	..	..	..	7	4	2
Total Tasmania ..	..	..	..	26	298	245	17
GRAND TOTALS—							
Administrative Offices ..	6	94	493	1,617	3,115	2,880	2,403
Munitions Factories and Establishments—							
Metropolitan ..	570	1,612	5,702	14,870	16,401	8,843	6,352
Country ..	4	30	54	1,375	6,147	3,192	1,304
Total ..	574	1,642	5,756	16,245	22,548	12,035	7,656
TOTAL FEMALES—AUSTRALIA ..	580	1,736	6,249	17,862	25,663	14,915	10,059

PERSONS.

ADMINISTRATIVE OFFICES.							
Australian Capital Territory ..	..	5	5	9	11	..	..
New South Wales ..	..	..	311	1,067	1,729	1,868	1,700
Victoria ..	18	288	1,089	2,411	4,061	3,100	2,538
Queensland ..	..	..	14	45	116	154	146
South Australia ..	..	..	42	134	202	204	166
Western Australia ..	..	..	11	44	92	96	81
Tasmania ..	..	..	1	14	22	31	24
Total ..	18	293	1,473	3,724	6,233	5,453	4,655
MUNITIONS FACTORIES AND ESTABLISHMENTS.							
New South Wales.							
Metropolitan—							
Explosives and Filling Factories—							
St. Marys ..	..	..	..	..	1,923	2,112	2,054
Villawood ..	..	..	..	..	287	297	85
Stores and Transport Branch ..	..	..	32	242	774	840	757
Total Metropolitan ..	..	..	32	242	2,984	3,249	2,896
Country—							
Ammunition Factories—							
Rutherford ..	..	..	..	111	710	659	55
Goulburn ..	..	..	..	17	253	248	382
Albury ..	..	..	..	14	471	5	..
Wagga Wagga ..	..	..	..	12	253	5	..
Broken Hill ..	..	..	..	..	232	288	252
Tamworth ..	..	..	..	..	83	..	..
Hay ..	..	..	..	..	..	81	..
Explosives Factory, Mulwala ..	..	..	..	..	310	405	234

EMPLOYMENT IN ADMINISTRATIVE SECTIONS OF DEPARTMENT OF
MUNITIONS AND AT MUNITIONS FACTORIES AND ESTABLISHMENTS
—continued.

At 30th June—

Particulars.	1939.	1940.	1941.	1942.	1943.	1944.	1945.
PERSONS—continued.							
MUNITIONS FACTORIES AND ESTABLISHMENTS—continued.							
New South Wales—continued.							
Country—continued.							
Small Arms Factories—							
Lithgow	536	1,991	4,098	5,058	5,480	2,750	1,069
Bathurst .. .. .	..	..	..	1,600	1,576	701	496
Orange .. .. .	..	..	..	1,339	2,356	1,011	763
Forbes .. .. .	..	..	..	231	256	148	..
Wellington .. .. .	..	..	..	..	368	172	..
Mudgee .. .. .	..	..	..	185	300	82	..
Cowra .. .. .	..	..	..	..	246	84	..
Young .. .. .	..	..	..	..	268	..	..
Dubbo .. .. .	..	..	..	..	128	36	..
Parkes .. .. .	..	..	..	..	127	88	..
Portland .. .. .	..	..	..	..	..	189	68
Stores and Transport Branch, .. .. .	..	..	..	..	58	70	66
Total Country	536	1,991	4,098	8,565	13,275	7,422	3,935
Total New South Wales	536	1,991	4,130	8,807	16,259	10,271	6,881
Victoria.							
Metropolitan—							
Ammunition Factory, Footscray	1,916	4,932	7,775	9,311	5,858	2,834	2,223
Explosives and Filling Factory, .. .. .	..	..	..	..	..	..	..
Maribyrnong	1,086	1,972	4,877	8,132	5,393	3,096	2,301
Ordnance and Projectile Factory, .. .. .	..	..	..	..	..	..	..
Maribyrnong	1,185	2,470	3,728	5,499	5,974	3,947	3,405
Laboratories and Respirator As- .. .. .	..	..	..	..	..	..	..
sembly, Maribyrnong	192	366	907	1,252	1,156	1,000	875
Central Drawing Office, Mari-	86	114	174	258	260	210	174
byrnong	54	112	273	926	1,499	1,137	944
Stores and Transport Branch .. .. .	..	..	..	..	..	..	..
Total Metropolitan	4,519	9,966	17,734	25,378	20,140	12,224	9,922
Country—							
Ammunition Factory, Mildura .. .. .	..	..	..	..	36	66	..
Explosives Factory, Ballarat .. .. .	..	..	..	626	676	225	89
Ordnance, Projectile and Ball .. .. .	..	..	..	..	..	..	..
Bearings Factories—							
Bendigo .. .. .	..	..	..	211	1,183	927	788
..
Horsham .. .. .	..	..	..	..	..	80	83
Stawell .. .. .	..	..	..	..	..	(a)	..
Hamilton .. .. .	..	..	..	..	..	22	..
Total Country .. .. .	..	..	..	837	1,895	1,400	1,097
Total Victoria	4,519	9,966	17,734	26,215	22,035	13,624	11,019
Queensland.							
Metropolitan—							
Ammunition Factory, Rocklea .. .. .	..	..	..	1,682	2,546	9	..
Stores and Transport Branch .. .. .	..	..	5	28	42	55	59
Total Queensland .. .. .	..	..	5	1,710	2,588	64	59
South Australia.							
Metropolitan—							
Ammunition Factories—							
Flinders .. .. .	..	..	826	5,346	2,792	1,614	1,395
Hendon .. .. .	..	..	2,003	2,712	2,501	1,195	557
Explosives and Filling Factory, .. .. .	..	..	..	..	..	..	..
Salisbury .. .. .	..	..	..	2,781	5,011	2,191	1,819
Stores and Transport Branch .. .. .	..	..	33	286	528	527	395
Total Metropolitan .. .. .	..	..	2,862	11,125	10,832	5,527	4,166

(a) Ceased before June, 1944.

EMPLOYMENT IN ADMINISTRATIVE SECTIONS OF DEPARTMENT OF MUNITIONS AND AT MUNITIONS FACTORIES AND ESTABLISHMENTS—*continued.*

Particulars.	At 30th June—						
	1939.	1940.	1941.	1942.	1943.	1944.	1945.
PERSONS— <i>continued.</i>							
MUNITIONS FACTORIES AND ESTABLISHMENTS— <i>continued.</i>							
South Australia— <i>continued.</i>							
Country—							
Ammunition Factories—							
Port Pirie .. .. .	..	..	..	..	318	192	113
Clare .. .. .	..	..	..	..	..	45	35
Kapunda .. .. .	..	..	..	..	..	28	..
Moonta .. .. .	..	..	..	..	..	38	38
Mount Gambier .. ..	..	..	..	..	..	54	..
Murray Bridge .. ..	..	..	..	..	..	46	..
Total Country .. ..	..	..	..	..	318	409	186
Total South Australia ..	..	..	2,862	11,125	11,150	5,936	4,352
Western Australia.							
Metropolitan—							
Ammunition Factory, Welshpool	..	..	..	117	1,900	1,706	1,132
Stores and Transport Branch ..	..	..	1	32	68	85	98
Total Metropolitan ..	..	..	1	149	1,968	1,791	1,230
Country—							
Ammunition Factory, Kalgoorlie	..	..	..	..	14	180	92
Total Western Australia	..	..	1	149	1,982	1,971	1,322
Tasmania.							
Metropolitan—							
Ammunition Factory, Derwent Park .. .. .	..	..	..	212	718	519	97
Stores and Transport Branch ..	..	..	..	..	26	18	13
Total Tasmania .. ..	..	..	..	212	744	537	110
GRAND TOTALS—							
Administrative Offices ..	18	293	1,473	3,724	6,233	5,453	4,655
Munitions Factories and Establishments—							
Metropolitan	4,519	9,966	20,634	38,816	39,256	23,392	18,383
Country	536	1,991	4,098	9,402	15,502	9,011	5,360
Total	5,055	11,957	24,732	48,218	54,758	32,403	23,743
TOTAL PERSONS—AUSTRALIA	5,073	12,250	26,205	51,942	60,991	37,856	28,398

(ix) *Salaries, Wages, and Like Payments.* The importance of the Munitions effort in respect of public income is demonstrated by the following statement of payments :—

Particulars.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£	£	£
Munitions Administration ..	67,402	160,705	817,211	1,725,626	1,953,774	1,707,721
Government Munitions Factories and Establishments ..	2,073,007	5,780,385	11,676,397	17,470,114	14,827,086	8,632,992
Technical Training Scheme ..	26,928	635,944	753,884	529,237	83,458	56,695
Total	2,167,337	6,577,034	13,247,492	19,724,977	16,864,318	10,397,408

Details of the abovementioned figures for Government Munitions Factories and Establishments are given in the following table:—

SALARIES, WAGES AND LIKE PAYMENTS, GOVERNMENT MUNITIONS FACTORIES AND ESTABLISHMENTS.(a)

Particulars.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.	1944-45.
	£	£	£	£	£	£
Ammunition Factories—						
New South Wales .. ..	..	..	10,005	230,837	508,371	284,142
Victoria	831,911	1,933,955	2,517,236	2,385,482	1,301,363	779,275
Queensland .. ..	..	50	214,525	558,653	191,065	1,779
South Australia .. ..	..	233,558	1,750,735	1,767,234	1,758,690	742,988
Western Australia .. ..	..	..	16,632	289,237	532,247	409,369
Tasmania .. ..	..	..	11,355	148,082	248,224	94,284
Total	831,911	2,167,563	4,520,488	5,379,525	4,539,960	2,311,837
Explosives Factories—						
New South Wales .. ..	..	..	97	198,119	872,544	736,390
Victoria	358,215	989,660	2,134,075	2,732,170	1,420,094	875,309
South Australia .. ..	..	..	217,533	1,532,902	1,065,711	541,854
Total	358,215	989,660	2,351,705	4,463,191	3,358,349	2,153,553
Ordnance, Projectile and Ball Bearings Factories—						
Victoria	420,107	1,162,085	1,885,405	2,738,314	2,390,669	1,653,459
Small Arms Factories—						
New South Wales	322,651	1,169,894	2,230,255	3,594,039	3,138,017	1,348,327
Laboratories and Respirator Assembly—						
Victoria	78,683	177,044	315,504	388,123	337,439	275,898
Central Drawing Office—						
Victoria	32,752	46,991	69,720	75,312	72,196	60,063
Stores and Transport—						
New South Wales .. ..	..	4,069	38,113	162,393	322,830	287,194
Victoria	28,688	58,646	202,176	493,945	456,924	359,426
South Australia .. ..	..	4,327	53,303	138,847	156,456	127,305
Other States .. ..	..	106	9,728	36,425	54,246	55,930
Total	28,688	67,148	303,320	831,610	990,456	829,855
All Factories and Establishments—						
New South Wales	322,651	1,173,963	2,278,470	4,185,388	4,841,762	2,656,053
Victoria	1,750,356	4,368,381	7,124,116	8,813,346	5,978,685	4,003,430
Queensland .. ..	..	156	220,070	571,173	212,216	19,671
South Australia .. ..	..	237,885	2,021,571	3,438,983	2,980,857	1,412,147
Western Australia .. ..	..	..	20,815	307,795	557,871	441,941
Tasmania .. ..	..	..	11,355	153,429	255,695	99,750
Total	2,073,007	5,780,385	11,676,397	17,470,114	14,827,086	8,632,992

(a) Excludes those shown under Administrative Offices in the table beginning on page 1048.

10. **State Boards of Area Management.**—Boards of Area Management, organized upon a State basis, and comprising leading business men, trade union representatives, and senior public officials, were appointed to supervise the carrying out of the munitions production allotted to each State, to co-ordinate State productive effort, and to administer ammunition and armament annexes (but not Government factories).

The Boards of Area Management in each State, wherever possible, utilized large industrial organizations not only as manufacturers, but also as centres for "farming out" components to small manufacturers organized in groups for feeding the large establishment.

The following table gives approximate figures of employment in annexes.

EMPLOYMENT IN MUNITIONS ANNEXES.

(APPROXIMATE.)

At 30th June—	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
MALES.							
1940	1,210	470	..	515	..	..	2,195
1941	3,622	2,668	43	1,587	..	..	7,920
1942	6,567	5,264	410	2,337	257	220	15,055
1943	5,887	4,528	675	1,905	471	419	13,885
1944	2,749	2,319	515	1,032	552	317	7,484
1945	1,756	1,346	455	652	352	214	4,775
FEMALES.							
1940	58	12	..	31	..	..	101
1941	425	181	36	108	..	..	750
1942	1,026	1,156	228	561	2	106	3,079
1943	1,661	1,898	357	946	251	275	5,388
1944	821	879	187	186	265	172	2,510
1945	298	339	75	87	129	120	1,048
PERSONS.							
1940	1,268	482	..	546	..	..	2,296
1941	4,047	2,849	79	1,695	..	..	8,670
1942	7,593	6,420	638	2,898	259	326	18,134
1943	7,548	6,426	1,032	2,851	722	694	19,273
1944	3,570	3,198	702	1,218	817	489	9,994
1945	2,054	1,685	530	739	481	334	5,823

11. *Production Directorates.*—(i) *General.* Following the appointment of the Director-General in June, 1940, eight directorates were established for the development of commercial industry for the production of certain groups of munitions, or in some cases of matters accessory thereto. The number of directorates and associated authorities was increased to a total of sixteen at the peak of production. Of this number twelve were still functioning on 30th June, 1945.

A brief description of the principal functions of these directorates follows.

(ii) *Gun Ammunition Production.*—This directorate came into being in May, 1940, when arrangements had already been made by the Defence Supply Planning Committee for the creation of 21 annexes, to be operated by "parent" firms and organizations, such as the State railway systems. During the war period the number of annexes and other major production units organized by the Directorate increased to 94. Of these, 20 continued in production on 30th June, 1945, and 9 others which had ceased production had been approved for retention as a potential. Action for liquidation of the remainder had either been taken or was in course.

Main items produced at the annexes and by contractors, together with their approximate numbers, were as follows:—Bombs, aircraft, 20,000; bombs, practice, 955,000; bombs, mortar, 2,404,000; fuzes, 5,257,000; fuzes, mine contact, 799,000; mines, contact A.T., 1,042,000; mines, naval, 7,600; primers, 4,842,000; shell, 5,144,000; and shot, 193,000.

Late in 1942 the production of spark plugs came within the jurisdiction of the directorate, and, shortly after, the co-ordination of manufacture of automotive spare parts was undertaken in conjunction with the Department of Supply and Shipping. Until the end of November, 1945, when co-ordination ceased, many millions of individual items, including types previously imported, were produced for the Services and for essential civilian transport.

The complete programme of bright bolt and nut production, which also came within the jurisdiction of the directorate, called for over 14,000,000 bolts and 20,000,000 nuts of various dimensions and diameters, production being shared between certain Government factories, annexes and contractors.

During August, 1943, refrigeration unit production was placed under this directorate and between then and 30th June, 1945, equipment to the value of approximately £2,000,000 was produced for the Australian and Allied Services.

(iii) *Explosives Supply.* Created in 1940, the directorate was composed largely of technical men, chemists and engineers, whose numbers ultimately reached a maximum of 190. Its objectives were the manufacture of high explosives, propellants and initiators, and the filling of all ammunition and pyrotechnic stores, etc., required by the fighting services.

Efforts of the directorate culminated in the creation of the following five complete factories: Explosives Factory, Ballarat, Victoria—manufacturing gunpaper and ammonium nitrate; Explosives and Filling Factory, Salisbury, South Australia—manufacturing cordite, T.N.T., tetryl, ammonium nitrate, lead azide, lead styphnate, and filling shell, bombs, grenades, caps, detonators, fuzes, depth charges (including cartridge bundling and cartridge assembly), and various pyrotechnics; Explosives Factory, Villawood, New South Wales—manufacturing T.N.T., tetryl and ammonium nitrate; Filling Factory, St. Mary's, New South Wales—filling shell, bombs, land mines, aircraft ammunition, fuzes, primers, gaines (including cartridge bundling and cartridge assembly), and various pyrotechnics; and Explosives Factory, Mulwala, New South Wales—manufacturing nitrocellulose and nitrocellulose powder propellant (American type).

The erection of four complete plants to synthesize ammonia from atmospheric nitrogen, and to oxidize the ammonia to nitric acid, was undertaken in 1941. This project, which makes Australia independent of imported Chilean nitrate of soda, the raw material for nitric acid, was carried out in conjunction with Imperial Chemical Industries of Australia and New Zealand Ltd., and plants were erected at the explosives factories at Albion and Ballarat in Victoria and at Villawood and Mulwala in New South Wales.

The total expenditure involved in erecting and equipping all factories and projects was approximately £22,000,000.

Work of the directorate also included training of technical personnel for duties at the various factories, procurement of the latest technical data (involving visits overseas by technical officers), and liaison with other Departments and commercial firms in Australia.

(iv) *Ordnance Production.* The function of this directorate was to create and maintain production of various kinds of equipment required by the Fighting Services. Value of the programme undertaken was approximately £72,000,000, of which equipment valued at £35,000,000 had been produced, delivered and accepted by the Forces by 30th June, 1945. Maximum monthly production achieved was £1,740,000, and the maximum annual production £21,000,000.

Orders were executed on behalf of the Australian Army, Navy, and Air Force and many other Commonwealth Departments, as well as New Zealand, England, India, the Dutch East Indies, United States of America, Ceylon and Hong Kong.

Over the five years of its operations, the directorate undertook a total of 913 projects of which 147 of a specialized nature were transferred to other production directorates or agencies upon the latter being formed. All of the remainder reached the production stage, work having been completed on 517 of them by the 30th June, 1945.

Among the types of production controlled by the directorate were guns and gun parts of various types, bridging equipment, mobile laundries, cookers, engineers' stores, electric generator sets, trailers, tyre retreading equipment, electric cable, and more than 300 types of agricultural machinery.

New industries created included the manufacture of rubber covered cables of all types; carbons and brushes for arc lights and searchlights, twelve different types of optical glass, and the design and production of instruments of many types demanding high mechanical and optical precision.

Supervision of agricultural machinery manufacture became a responsibility of the directorate in June, 1943, and the approved requirements covered all types of vegetable-growing equipment; tillage implements; seed drills and cultivators; fertilizer distributors; hay-making equipment; harvesting machines; potato planters and diggers; dairy farm, poultry farm, and pastoral equipment; windmills and pump jacks; spraying and dusting equipment for orchards and vegetables; irrigation plants; cane cultivating equipment; and many miscellaneous types of machinery. The total number of pieces of agricultural equipment produced was 348,000.

Under the guidance of the directorate many shops which in peace-time worked on a jobbing basis were re-organized and re-equipped to enable them to take care of quantity production. Numbers of small factories were expanded, and industry as a whole assisted to manufacture entirely different types of products.

(v) *Armoured Fighting Vehicles.* The organization operated from December, 1940 to October, 1943, commencing as a section of the Ordnance Production Directorate, and being constituted as a separate directorate in August, 1941. It controlled the design and production of armoured fighting vehicles suitable to Australian conditions. Construction included cruiser tanks, machine gun and anti-tank gun carriers, mortar carriers, armoured scout cars, and light and heavy armoured cars, as well as modifications to certain types of tanks, and the manufacture of spare parts.

Changing conditions in the Pacific war theatre, and increased availability of large quantities of modern armoured vehicles from the United States of America, led to a revision of the production programme, and in the early part of the second half of 1943, after a total of 65 had been completed, the construction of further cruiser tanks was suspended.

On 15th October, 1943, the Ordnance Production Directorate assumed responsibility for the remaining activities of this directorate, such as production of machine gun carrier spares and modifications to United States type tanks and other armoured vehicles.

(vi) *Machine Tools and Gauges.* The directorate, formed in May, 1940, has controlled the production, reconditioning, acquisition, disposal and distribution of machine tools, ball bearings, electrical equipment, gauges, factory equipment, transmission gears, and hand tools.

At the peak of war production there were 200 firms employing 12,000 persons for an annual production of 14,000 machines, as against 6 firms employing 700 persons for an annual production of 2,000 machines before 1939.

Allocations and delivery of machine tools, including those locally produced to departmental order, local purchases, and departmental importations from overseas, were as follows: Royal Navy, 441; Royal Australian Navy, 3,001; Australian Army, 9,447; Royal Australian Air Force, 6,059; British Army in Egypt, 421; United States Forces in Australia, 4,837; Indian Government and Eastern Group Supply Council, 161; New Zealand Government, 508; South African Government, 92; Netherlands East Indies, 466; Aircraft Production Department, 8,737; Labour and National Service Department (for technical training), 768; Department of Interior (for Allied Works Council, Commonwealth Railways and other Government Departments), 2,187; and Department of Munitions—Government Factories, 7,316; Gun Ammunition Annexes, 3,935; Ordnance Production Annexes, 800; Ordnance Production Contractors, 3,955; Armoured Fighting Vehicles Workshops and Annexes, 1,240; Shipbuilding Annexes and Small Craft Directorate, 1,600; Radio and Signal Supplies, 462; Munitions Stores Depots, 4,950; Commercial Industry Sales, 6,487; Commercial Industry Loans, 12,815; Total, 79,785 to 30th June, 1945.

Approximately £9,000,000 was spent upon tool and gauge manufacture, the number of plants in this sphere increasing from three in 1939 to 188 in 1943.

(vii) *Locomotive and Rolling Stock Construction.* Following a War Cabinet Minute dated 12th August, 1942, this directorate was created to undertake the construction of Garratt locomotives and flat top waggons for the Australian 3 ft. 6 in. gauge railways. A further responsibility was the collation of all Lend-Lease orders for railway equipment and material.

The organization for the carrying out of the building programme embraced the whole of the Commonwealth, orders covering locomotive construction being distributed among 105 firms, while 94 firms co-operated in the building of 1,000 waggons, which project had been completed by 30th June, 1944. To 30th June, 1945, 53 locomotives had been constructed.

(viii) *Radio and Signal Supplies.* Established in July, 1942, the directorate organized and controlled production in commercial industry of radar equipment, radio frequency communication equipment, and non-radio signal equipment, in order to meet the requirements of the various Service ordering authorities.

A total of 274 projects were handled for the three years ended 30th June, 1945, the value of equipment delivered being £15,578,000, details of which are as follows: Field wireless equipment for the Army (including United States Forces) valued at £3,914,000, comprising portable stations, £1,388,000, fixed stations, £1,740,000, and mobile stations, £786,000; radio equipment for the Navy (including United States Forces) valued at £668,000, comprising shore stations, £305,000, and shipboard stations, £393,000; radio equipment for the Royal Australian Air Force to the value of £2,651,000, comprising ground stations, £1,620,000 and aircraft, £1,022,000; sundry special equipment for all Services for special Service amenities, etc., £1,431,000; radar equipment valued at £2,019,000, comprising ground and ship stations, £1,286,000, airborne, £403,000, and test equipment, £330,000; line signal equipment, £2,821,000; telephone equipment, £1,459,000; and general and sundry equipment, £585,000.

(ix) *Small Craft Construction.* This directorate commenced operations in October, 1943, when the small craft construction programme of the Australian Shipbuilding Board was transferred to its control. (Details of the work already carried out by the Board are given in paragraph 12 (iv).)

Existing boat builders in the metropolitan areas and scattered along the eastern coast were first called upon, and new establishments were constructed by the Government. Motor car manufacturers, builders and contractors, furniture and sporting goods manufacturers and engineering companies were utilized later.

As well as the 127 contractors in all States occupied in hull building and fitting out of vessels, 764 contractors were engaged directly in the production of components.

One of the problems associated with the provision of auxiliary marine craft in the numbers required was the supply of engines for self-propelled craft. Before the war, the manufacture of high horse-power compression ignition engines had not been attempted in Australia, Diesel engines of only relatively small horse-power having been produced. As overseas supplies of engines for marine craft could not be assured, arrangements were made to include in the programme the local manufacture of six-cylinder Ruston-Hornsby 200 h.p. low speed marine Diesels and gear boxes and six-cylinder Gray 165 h.p. high speed marine Diesels and gear boxes.

The Ruston-Hornsby project was commenced at the end of December, 1943, and by June, 1945, 70 engines and gear boxes had been completed, besides a large proportion of components for a further 80 engines and gear boxes. In view of the urgent requirement, converted General-Motors Diesel engines were used in the Gray project, but by June, 1945, the complete Gray engine was in production.

Up to 30th June, 1945, a total of 27,641 craft had been handed over, as follows:—United States Army Services of Supply, 21,065; Australian Army, 6,051; Royal Australian Navy, 226; Royal Australian Air Force, 287; Royal Navy, 5; and miscellaneous, 7. Types comprised 584 powered steel craft; 1,158 unpowered steel craft; 1,090 powered wood craft; 2,144 unpowered wood craft; 14,389 pontoons; 8,276 life-boats, dinghies, and miscellaneous craft.

The estimated total value of the completed programme was £25,000,000.

(x) *Materials Supply.* (a) *Reserves of Materials.* The primary function of this directorate was the bulk purchase and distribution of reserves of materials required by all munitions factories and annexes for the production programme. These purchases covered not only production materials, but also those for maintenance and consumable stores. Up to 30th June, 1945, purchases totalling £48,000,000 were made from the following sources of supply:—£24,000,000 locally, £14,000,000 from United Kingdom,

£7,500,000 from United States of America, £1,500,000 from India, and £1,000,000 from Canada. Materials making up this amount were chemicals, £17,500,000; metals, £22,500,000; textiles, paper and boards, £2,000,000; radio and signal supplies, £2,000,000; and miscellaneous, £4,000,000. Purchases of comparatively minor amount were also made from other allied and neutral countries.

(b) *Annexes.* Eighteen annexes were placed under the directorate, their activities being concerned with castings, forgings, aluminium fabrication, re-melting of secondary aluminium, die-casting alloy, magnesium powder and nickel matte.

(c) *Controls.* Under the Control of Essential Materials Order, issued in pursuance of Regulation 59 (National Security Regulations), the directorate controlled the usage of iron and steel, non-ferrous metals, industrial chemicals and certain other items. Approximately 600 items were subject to direct control, and written applications dealt with annually averaged 600,000.

(d) *New Manufacture and Expansion of Industry.* There was a substantial development or increase in production of 44 ferrous items, 36 non-ferrous, 9 insulated wires and cables, 103 industrial chemicals, and many miscellaneous types, representing for the most part permanent additions to secondary industry.

(e) *Supply Certificates and Overseas Sponsoring.* Approximately 70,000 applications by importers or exporters for the import or export of controlled materials were sponsored through the agency of the directorate, and in addition 30,000 applications were sponsored by priority cables or letters to the controlling authorities overseas.

(f) *Disposal of Surplus Materials.* With the depression of the munitions programme, a detailed review was carried out with respect to all reserve stocks of materials. Up to 30th June, 1945, reserves declared surplus to requirements were valued at over £6,133,000. Recommendations for sale concerning these to the value of £3,371,000 were forwarded to the Controller of Liquidations.

(g) *Salvage.* This section was responsible for supervising the establishment and functions of salvage sections organized in all Government factories and annexes. Up to 30th June, 1945 proceeds from the disposal of surplus scrap materials exceeded £1,000,000, while very considerable quantities were also re-utilized in the munitions programme.

12. Australian Shipbuilding Board.—(i) *General.* Commercial shipbuilding in Australia was practically non-existent prior to 1914, and during the next four years only a few wooden ships for use in the coastal trade were constructed. From 1919 to 1924, 19 cargo steamers, each approximately 3,350 tons gross, and 2 cargo steamers, each approximately 9,700 tons gross, were built in Australian shipyards. Between 1924 and 1941 shipbuilding was confined to Naval vessels of various types, vessels required by Government Departments, and vessels under 500 tons.

The Australian Shipbuilding Board was created on 26th March, 1941.

The Board, which was directly responsible to the Minister and Director-General of Munitions, consisted of a Chairman, the Director of Shipbuilding, a person appointed on the nomination of the Naval Board, a public accountant, known as the "Finance Member", a person representative of the employees engaged on shipbuilding, and any other person whose appointment might be considered necessary by the Minister.

It was first necessary to explore the existing facilities in order to determine the yards most suitable to enable shipbuilding to be undertaken on the scale required. Following an exhaustive survey, the Government decided, upon the Board's recommendation, that financial assistance be provided to the following contractors to enable them to expand their facilities to meet requirements:—Mort's Dock & Engineering Co. Ltd., Sydney; Melbourne Harbour Trust Commissioners, Williamstown (now H.M.A. Naval Dockyard); and Evans Deakin & Co. Ltd., Brisbane. Facilities were also provided on Cockatoo Island, Sydney, which is Commonwealth property leased to the Cockatoo Docks and Engineering Co. Pty. Ltd. The Broken Hill Pty. Co. Ltd. shipyard at Whyalla, South Australia, was built at the Company's own expense. Arrangements were made between the Commonwealth and the State for expansion of the facilities at the New South Wales Government Engineering and Shipbuilding Undertaking, Newcastle.

(ii) *Construction Programme.* The original scheme envisaged a long range programme of 60 "A" class 9,000-ton standard merchant ships based on a production of 12 ships per annum, but owing to the outbreak of war with Japan and the consequent unprecedented volume of ship repair work, this rate of production was not possible.

It was finally decided to embark upon the undermentioned programme :—13 "A" Class 9,000-ton standard merchant ships, 10 "B" Class 6,000-ton freighters, 10 "C" Class 4,000-ton freighters, 10 "D" Class 2,500-ton freighters, 10 "E" Class 550-ton freighters, thirty-two 300-ton wooden merchant ships, 3 "A" type ocean-going tugs, 3 "B" type harbour tugs, and a 1,000-ton steel floating dock.

At 31st December, 1945, the following work had been carried out on this programme :—Ten "A" Class vessels were completed and in service, and of the other three the completion dates were in sight; orders had been placed for the construction of four "B" class vessels, and fabrication was proceeding; no orders had been placed for "C" class vessels; orders had been placed for ten "D" class vessels, and construction was under way; five "E" class freighters had been ordered, and fabrication was under way; out of the total of thirty-two 300-ton wooden cargo vessels 22 had been delivered to Army, while another 5 were under construction; fabrication of the three "A" type ocean-going tugs was under way, but further work was suspended; work upon the three "B" type harbour tugs had not commenced, and the project had been suspended; and construction of the 1,000-ton steel floating dock was nearing completion.

(iii) *Ship Repair Facilities.* (a) *General.* The opening of hostilities with Japan created an extraordinary demand on the ship repair facilities of the Commonwealth, so that it early became necessary to co-ordinate and control Allied Navy, Army and mercantile marine requirements in accordance with the plant and equipment available. By arrangement with the Department of the Navy a Controller of Ship Repairs was appointed.

Notwithstanding the facilities provided, it was found impossible for the shipyards to maintain a continuous flow of work upon new construction owing to the unceasing demand for ship repair work, which took precedence over new construction.

(b) *Merchant Vessels.* From the inception of the co-ordination of ship repairs until December, 1945, altogether 11,987 ships, of a total of 51,962,840 tons, had undergone repair or heavy maintenance. During the same period 1,772 merchant ships of a total of 6,020,240 tons were dry docked or slipped.

(c) *Naval Vessels.* Naval ships that underwent major refit, maintenance, or repair in Australia from September, 1939 to 15th August, 1945, were as follows, the tonnage being shown in parenthesis :—Royal Australian Navy, 4,008 (2,150,000); Royal Navy, 391 (1,671,000); United States Navy, 513 (800,000); Dutch Navy, 171 (220,000); and French Navy, 44 (92,000); total, 5,127 (4,933,000).

(iv) *Small Ships Construction.* The Board was responsible from August, 1942 to October, 1943 for the construction of auxiliary marine craft to meet the requirements of the Australian Navy, Army, and Air Force Services, and the United States Armed Forces in Australia.

A great deal of intensive investigation was required in the early stages in order to provide facilities for small craft construction, and to distribute the work to the best advantage.

At the date of transfer to the Small Craft Construction Directorate total requirements of 8,862 craft had been submitted to the Board from all Services, etc., while of 6,644 craft ordered 2,416 had been completed and handed over as follows :—United States Armed Forces in Australia, 2,267; Royal Australian Navy, 27; Royal Australian Air Force, 92; Australian Army, 29, and Allied Works Council, 1.

The estimated total cost of the craft demanded at the date of the transfer was in the vicinity of £18,000,000. Details of the further development of this programme are given in paragraph 11 (ix).

13. *Timber Control.*—(i) *General.* A Controller of Timber was appointed in June, 1941 to mobilize timber supplies necessary for the efficient prosecution of the war, and for services essential to the life of the community.

In October, 1941 a Control of Timber Order was gazetted under the provisions of the National Security (General) Regulations, but in order to provide the necessary machinery for the closer control of timber distribution and use, this order was superseded in March, 1942 by the National Security (Timber Control) Regulations.

These Regulations gave the Controller of Timber powers to govern and direct the production, treatment, handling, sale, supply, movement, distribution, storage, marketing and consumption of timber.

Amendments to the National Security (Timber Control) Regulations were subsequently made as follows:—

- (i) On 8th September, 1943, the definition of timber under Regulation 4 was extended to cover processed boards known by the trade names of Masonite and Caneite and similar products, and
- (ii) On 23rd February, 1944, Regulation 6 was amended by the addition of paragraphs giving the Controller of Timber power to authorize any person to enter upon any land and to cut and remove therefrom any timber and also to pass and re-pass over any land for the purpose of cutting and conveying timber from other land in the vicinity.

The work of the Timber Control Office continued to function within the Department of Munitions until October, 1945. In November, 1945, the various States assumed control over the production and distribution of timber within State boundaries, the Commonwealth Department of Works and Housing dealing with matters concerning imports, exports, and interstate movement of timber.

(ii) *Production.* Australia used approximately 1,000 million super feet of timber annually in peace-time, of which 650 million were produced locally and 350 million imported.

During the war period the annual production of sawn timber was maintained above the pre-war level, although it declined from 1942-43 onward due to the limiting effects of shortages in manpower, equipment (tractors and trucks, together with spare parts, axes, saws, and other tools) and transport.

(iii) *Consumption and Main Timber Usage for War Purposes.* Approximately 1,704 million super feet of timber were used for direct war purposes up to 30th June, 1945, 267 million super feet prior to the war with Japan and 1,437 million super feet thereafter to June, 1945.

In the following table the total quantity is classified according to usage.

**APPROXIMATE QUANTITIES OF TIMBER USED FOR WAR PURPOSES TO
30TH JUNE, 1945.
(Million super feet.)**

Particulars.	Quantity.	Particulars.	Quantity.
Construction—		Manufactures— <i>continued.</i>	
Armament and Service Buildings..	136	Aircraft	13
Camps, Huts, Hospitals, Hangars		Pallets	20
Stores and other works ..	370	Tent Poles and Pegs	13
Prefabricated Structures ..	55	Furniture, etc.	92
Dock Sets	17	Battery Separators	2
Operational Timber—			
Australian Forces	70		
United States Forces	127	Total, Manufactures	346
Wool Stores	45		
Total, Construction.. .. .	820	Cases—	
Manufactures—		Foodstuffs for Armed Forces ..	455
Munition Boxes	99	Clothing for Armed Forces ..	44
Rifles, Weapons and Accessories..	15	Equipment	39
Bridging Equipment and Assault			
Craft	10	Total, Cases	538
Small Craft	50		
Large ship construction and repair	32	Grand Total	1,704

In addition to sawn timber as aforementioned, the forests of northern New South Wales and Queensland were drawn upon heavily for various wharf construction projects carried out in north Queensland and at operational bases in islands in the South West Pacific.

(iv) *Imports.* Before the war approximately two-fifths of the timber used in Australia were imported, including practically the whole of the constructional timber used in the principal cities and a substantial proportion of the case-making timber.

Following the outbreak of war, imports of timber, principally from Canada, were drastically restricted to conserve dollar exchange and shipping space, with the result that the quantity of timber imported into Australia declined from 324 million super feet in 1938-39 to 32 million super feet in 1942-43. Imports in 1943-44 increased to 45 million super feet and in 1944-45 to 92 million super feet.

(v) *Exports.* The export of timber from Australia was prohibited in October, 1941 except under licence issued by the Department of Trade and Customs. Limited quantities of hardwoods were made available to South Africa from time to time, principally from Western Australia, for the maintenance of railway systems and governmental works. Large quantities of sleepers, scantlings, and heavy wharf timbers were exported during 1941 and 1942 for military use in the Middle East and Iraq. A regular supply of hardwoods to New Zealand was continued under a reciprocal trade arrangement in exchange for quantities of New Zealand timbers suitable mainly for case manufacture.

14. *Electricity Supply Control.*—(i) *General.* The control of electricity supply was undertaken by the Department of Munitions in September, 1942, with the object of ensuring that generation, transmission, distribution and supply of electricity be mobilized and co-ordinated; that electricity generating sets, boilers, transformers, switchgear, and all associated and incidental materials and property be made available where most needed; and that all supplies of electricity be maintained at their fullest capacity.

(ii) *Pool Stock.* Owing to difficulties of supply from overseas, action was taken to arrange for a stock of equipment likely to be required in the event of enemy action.

(iii) *Service Requirements.* Returns of all generating plant were called for early in 1943, and a list was compiled showing plant available for transfer for use elsewhere. Plant required by the Services or other Departments was allotted from this list, and the Directorate of Machine Tools was requested to complete the acquisition.

(iv) *Rural Supply.* A scheme was drawn up in conjunction with the Controller of Food Supply to facilitate the supply of electric power to food producers in country areas, and to assist Supply Authorities to obtain materials for extensions of their reticulation for this purpose.

(v) *Munitions Factories.* Arrangements were made to provide electricity to various munitions factories and service establishments.

(vi) *Fuel Supplies.* Due to a shortage of black coal, it was necessary to effect savings in fuel, and to do so without loss of efficiency. Restrictions were placed on the use of electric light for non-essential purposes, principally in connexion with display and decorative lighting, excessive street lighting, and outside lighting for sports.

15. *Labour Supply and Services.*—(i) *General.* At the time of the formation of the Department of Munitions, the four existing Commonwealth munitions factories were employing in all about 10,000 persons.

Wages rates and working conditions in the three Victorian munitions factories were as provided by an agreement made between the Department and 13 unions in 1939, and at the Lithgow Small Arms Factory wage rates were fixed and conditions prescribed by a determination made by the Public Service Arbitrator.

Upon the establishment of Government factories in other States, the munitions agreement was extended to cover employees in factories other than small arms establishments. The Lithgow determination was extended to apply to the small arms feeder factories in various parts of New South Wales.

(ii) *Employment.* The plan for munitions production contemplated a calculated employment of some 150,000 persons, and it was thought that probably as many more would be employed in a "feeder" capacity.

Details of employment in administrative sections of the Department, and at munitions factories and establishments, are given in paragraph 9 (viii), while employment in annexes (as far as can be ascertained) is given in paragraph 10. General employment statistics, so far as contractors were concerned, were not within the functions of the Munitions Department.

Changes in the incidence of employment directly in the munitions effort are indicated briefly in the following table, which includes an estimate of employment outside the Government Establishments:—

DIRECT MUNITIONS EMPLOYMENT: AUSTRALIA.

Particulars.	Number at peak employ- ment, April-June, 1943.	30th June—			Decrease April, 1943 to June, 1945.
		1943.	1944.	1945.	
Government Factories—					
Male	33,676	32,210	20,368	16,087	17,589
Female	23,121	22,548	12,035	7,656	15,465
Total	56,797	54,758	32,403	23,743	33,054
Industry (estimated)—					
Male	84,196	84,196	59,543	34,000	50,196
Female	15,428	15,428	9,964	8,000	7,428
Total	99,624	99,624	69,507	42,000	57,624
Total direct employment(a)—					
Male	117,872	116,406	79,911	50,087	67,785
Female	38,549	37,976	21,999	15,656	22,893
Grand Total	156,421	154,382	101,910	65,743	90,678

(a) Excludes employment in administrative offices shown in paragraph 9 (viii).

(iii) *Medical Services.* Since 1st July, 1942, the Munitions Medical Service has been administered by the Director-General of Health.

There were 49 casualty centres at 34 different munitions establishments as at 30th June, 1944. At the three largest explosives factories there were pathological laboratories, and X-ray plants at two other large factories.

Between July, 1942 and June, 1945, the total attendances of munitions employees for initial medical examinations, periodical examinations for industrial diseases, treatment and dressings for accidents on duty, or advice in respect of illness (exclusive of X-ray and biochemical and blood examinations) were as follows:—New South Wales, 567,785; Victoria, 582,097; Queensland, 26,009; South Australia, 341,897; Western Australia, 81,905; Tasmania, 43,358; total, 1,643,051.

(iv) *Dilution of Labour.* It was realized early that war conditions would create a demand difficult of fulfilment for tradesmen in metal industries and in 1940 dilution

agreements were entered into between the Commonwealth Government, employers' associations, and unions concerned covering engineering, boiler-making and blacksmithing trades. Upon the creation of the Department of Labour and National Service in October, 1940, administrative control of matters relating to dilution of labour was transferred to that Department. Certain other trades in which shortages of tradesmen existed were later covered by dilution agreements, and the principles involved in the various agreements were subsequently incorporated in the National Security Regulations.

In all except the metal moulding, boot and shipwrights' trades (in which provision was made for up-grading only) "added tradesmen" under the dilution schemes were either persons up-graded as tradesmen, or trainees accorded tradesman status after undergoing an approved course of training, and they were paid the appropriate award rate for the work to which allotted. Employers were not permitted to employ added tradesmen while competent recognized tradesmen of the same classification were available.

At June, 1944, registered added tradesmen in employment or training in Australia numbered 38,164, comprising 21,439 up-graded employees, 16,685 trainees in employment and 40 trainees in training. The distribution among States was as follows:—New South Wales, 17,386; Victoria, 12,524; Queensland, 2,289; South Australia, 3,759; Western Australia, 1,398; and Tasmania, 808.

The numbers in the various trades comprised:—Engineering—up-graded, 14,529; trainees, 16,218; in training, 9; Boilermaking—up-graded, 2,260; trainees, 163; in training, 26; Blacksmithing—up-graded, 345; trainees, 9; Electrical—up-graded, 983; trainees, 95; in training, 1; Sheet-metal—up-graded, 501; trainees, 200; in training, 4; Metal Moulding—up-graded, 567; Boot—up-graded, 897; Shipwright—up-graded, 1,357.

16. Finance Branch.—(i) *General.* The projects developed under the control of the Director-General of Munitions were undertaken in pursuance of a mandate given by War Cabinet whereby the Director-General was authorized to proceed if the proposals upon which the projects were based had been favourably considered by War Cabinet. These proposals were the recommendations and demands for munitions and war material submitted by the Defence Services, and upon these were built up the respective projects of the Munitions Development Programme.

The Director-General of Munitions had power also to make and vary contracts, which implies that he had power also to dispense with the customary procedure of inviting tenders in cases where he considered it expedient. The Director-General delegated his powers in this respect to the Director of Finance.

(ii) *Munitions Annexes.* Prior to the war, arrangements were made for the establishment of about 25 annexes attached to the works of commercial firms and State Railway Departments which were to manage and operate them.

The expansion in the Munitions programme subsequent to the creation of the Department of Munitions led to the establishment of many other annexes, and the amount allocated for subsidy of industry for production of munitions reached £20,000,000.

As at 30th June, 1945, a total of £16,429,750 had been authorized by the Director-General for armament annexes, plant and experimental work, of which £13,284,611 had been expended. Details are as follows:—New South Wales, authorizations, £0,094,438 (expenditure, £4,722,875); Victoria, £7,156,106 (£5,847,889); Queensland, £119,945 (£30,612); South Australia, £2,064,998 (£1,851,127); Western Australia, £401,887 (£320,177); Tasmania, £262,473 (£189,567); miscellaneous items, all States, £227,251 (£206,641); and Optical Munitions research and development, various States, £102,652 (£100,723). Total authorizations at the 30th June, 1945 by the Director-General in respect of tool room annexes at the New South Wales, Queensland, South Australian, Western Australian and Tasmanian Railways amounted to £405,021, of which £317,912 had been expended.

The number of projects in respect of which funds were allocated was 244, distributed amongst the States as follows:—New South Wales, 95; Victoria, 94; Queensland, 6; South Australia, 31; Western Australia, 11; and Tasmania, 7.

(iii) *Costs of Munitions.* The following statement sets out the costs of some of the major items of weapons and ammunition, and of machine gun carriers. Costs of components were assembled annually, the price of the complete item being determined as at the 30th June of each year. The prices quoted hereunder were the lowest thus ascertained, for delivery to the Australian Services.

MACHINE GUN CARRIERS, WEAPONS, AND AMMUNITION : COSTS.

Item.	Price.
	£ s. d. Each.
Machine Gun Carrier L.P. No. 2	1,500 0 0
Weapons—	
3.7" Anti-Aircraft Gun—ordnance and mounting	6,000 0 0
25-pounder Gun—ordnance, carriage, and trailer	4,500 0 0
25-pounder Short Gun—ordnance and carriage	3,300 0 0
17-pounder Gun—ordnance and carriage	4,000 0 0
4" Naval Gun, Mark XIX—including mounting	5,661 0 0
2-pounder Anti-Tank Gun—ordnance and carriage	1,750 0 0
3" Mortar	150 0 0
Machine Gun, Vickers—excluding mounting	109 0 0
Machine Gun, Bren—excluding mounting	146 0 0
Rifle .303"	12 7 0
Bayonet	1 3 1
Scabbard	0 9 8
Ammunition—Filled and packed, except where otherwise stated—	
Small Arms Ammunition—	Per thousand.
.303" Ball	9 7 8
.303" Tracer	19 12 4
.303" Armour Piercing	18 3 1
.303" Incendiary	24 3 0
9 mm	7 1 6
	Each.
20 m.m. H.E. Incendiary—Hispano	0 15 9
20 m.m. H.E. Incendiary—Oerlikon	0 17 3
Cartridge, Q.F., H.E., 18-pounder Shell S.L.	2 13 8
Cartridge, Q.F., 3.7" Gun H.E. Shell	7 3 1
Cartridge, Q.F., 6-pounder, 7 cwt. A.P. Shot	3 7 6
Cartridge, Q.F., 4" Mk. XIX Gun, H.E. Shell (plugged)	12 10 6
Cartridge, Q.F., 4" Mk. XIX Gun, Star Shell (plugged)	16 1 6
Cartridge, Q.F., 2-pounder, H.E. Shell, high velocity (including link belting)	2 14 3
Cartridge, Q.F., 2-pounder, H.E. Shell, low velocity (including link belting)	2 7 7
Cartridge, Q.F., 25-pounder	1 5 5
Shell, Q.F., H.E., 25-pounder, S.L. (fuzed 117)	2 10 0
Cartridge, Q.F., 4.5" Howitzer	1 2 4
Shell, Q.F., H.E., 4.5" Howitzer (fuzed)	3 6 5
Shell, Smoke, 4.5" Howitzer (plugged)	2 19 9
Cartridge, B.L., 6" Howitzer	1 2 7
Shell, B.L., H.E., S.L., 6" Howitzer (filled, plugged, and grummeted)	6 13 0
Cartridge, B.L., 6" Gun, Cordite S.C. 103, Mark I Foil, 11 lb. 10½ oz.	2 15 7
Cartridge, B.L., 6" Gun, Cordite S.C. 150, Mark I. Foil, 33 lb. 0 oz. 12 drms.	7 6 7
Shell, B.L., C.P.B.C., 6" Gun, Mark XXXIb (filled, plugged and grummeted)	22 13 11
Shell, B.L., H.E., 6" Gun, Mark XXVIIIb (filled, plugged and grummeted)	6 17 1
Cartridge, B.L., 60-pounder	2 10 9
Shell, B.L., H.E., 60-pounder (filled, plugged and grummeted)	4 14 0

MACHINE GUN CARRIERS, WEAPONS, AND AMMUNITION: COSTS—*continued.*

Item.	Price.
Ammunition—Filled and packed, except where otherwise stated— <i>continued.</i>	
Small Arms Ammunition— <i>continued.</i>	£ s. d.
Bomb M.L., 2" Mortar, H.E.	Each. 1 9 2
Bomb M.L., 3" Mortar, H.E., 10 lb. (fuzed 152)	1 19 11
Bomb S.B.B.L., 4.2" Mortar, H.E.	6 4 6
Bomb, Aircraft, H.E., A/S 250 lb.	24 9 5
Bomb, Aircraft H.E., G/P, 250 lb.	16 2 0
Bomb, Aircraft Practice, 8½ lb.	0 14 1
Depth charge—	
Case (filled Amatol)	21 2 0
Primer	9 4 0
Detonator	2 13 0
Grenade—	
No. 36M—Hand	0 5 0
No. 36M—Rifle	0 7 9
No. 63	0 6 9
No. 68	1 4 9
No. 69	0 12 9
No. 73	1 6 0
No. 77	0 18 3
Naval mine (empty)	94 0 0
Mine Contact A.T., Mark II	2 4 9
Mine Contact A.T., Mark V	1 5 6
Cartridge Signal, 1½" Red	0 3 6
Cartridge Signal, 1½" Green	0 3 6
Flare, Aircraft Reconnaissance, 4.5"	14 0 0
Flare, Landing Wing Tip	1 12 6
Marker, Sea, Aluminium	4 2 6
Signal Distress, Marine	3 14 0
Smoke Float	12 0 9

(iv) *Expenditure.*—(a) *Summary.* The following table gives a summary of the total expenditure incurred on account of munitions during the years 1939-40 to 1944-45 :—

MUNITIONS: TOTAL EXPENDITURE.

Particulars.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.	1944-45.
Parliamentary Appropriations (including Reciprocal Lend- Lease) and Lend-Lease(a)	£'000. 3,798	£'000. 14,857	£'000. 24,284	£'000. 29,760	£'000. 36,756	£'000. 25,620
Trust Fund Accounts	4,555	20,160	84,716	152,765	121,722	83,083
Munitions Department for other Administrations	(b)	4,357	4,354	4,139	14,202	2,852
Total	8,353	39,374	113,354	186,664	172,680	111,555

(a) Includes approximately £25,000,000 over the years 1942-43 to 1944-45 proportion of Reciprocal Lend-Lease, not included under Munitions in § 6, Chapter XVIII. (b) Included above.

Details of expenditure under Parliamentary appropriations will be found in § 6, Chapter XVIII.

(b) *Trust Funds.* The table hereunder shows the expenditure from the various Munitions Trust Funds during the years 1939-40 to 1944-45:—

MUNITIONS: TRUST FUND EXPENDITURE.

Fund.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.	1944-45
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
(i) Government Munitions Factories and Establishments	3,941	10,810	26,003	42,829	34,935	20,501
(ii) Manufacture of Munitions	614	9,350	42,213	82,340	67,723	53,831
(iii) Machine Tools	(a)	(a)	2,801	7,928	4,511	2,675
(iv) Materials	(a)	(a)	13,699	19,668	14,553	6,074
(v) Aluminium Production.. ..	..	..	..	..	..	2
Total	4,555	20,160	84,716	152,765	121,722	83,083

(a) Charged against Parliamentary appropriations.

In 1939-40 and 1940-41 certain of the expenditure from (i), and from 1941-42 onwards the greater part, was financed through (ii). There is therefore considerable duplication when (i) and (ii) are combined. It is desirable, however, that they should be added if an overall picture of the financial transactions is to be obtained.

§ 8. Department of Aircraft Production.*

1. *General.*—Arising out of the visit of the United Kingdom Air Mission in 1939, an agreement was entered into between the Governments of the United Kingdom and Australia for the manufacture in Australia of Bristol Beaufort bombing and reconnaissance aircraft. The Air Mission's report, made in March, 1939, received the approval of the Government at the end of that month and, upon the creation of the Department of Supply and Development, Aircraft Construction was constituted a branch of that Department. In July, 1939, the Aircraft Construction Branch began to function but, in March, 1940, with the extension of aircraft manufacture in Australia, it was reconstituted as the Aircraft Production Commission.

2. *The Aircraft Production Commission.*—The Commission, consisting of a Chairman, two other full-time executive members, and three part-time members, was a statutory body reporting to the Minister for Supply and Development until 11th June, 1940, and then to the Minister for Munitions until June, 1941, when the separate Department of Aircraft Production was established with its own Minister.

The functions of the Commission were, broadly, to control the manufacture of aircraft and aero engines in Australia, with responsibility for maintaining and operating factories established or purchased by the Commonwealth for the production of aircraft; for making arrangements, agreements or contracts for the acquisition, manufacture or assembly of aircraft; for exercising full control over the manufacture of aircraft for or on behalf of or at the instance of the Commonwealth and of matters connected therewith or arising thereout; for arranging for the overhaul and repair of aircraft in places other than Air Force establishments; for arranging for the supply, either from within Australia or from overseas, of materials, tools, and equipment required by aircraft manufacturing undertakings under the control of the Commission; for developing local sources of supply

* As from 1st November, 1946 the activities of the Department of Munitions and of the Department of Aircraft Production were amalgamated, subsequent aircraft production activities being conducted by the Division of Aircraft Production, Department of Munitions.

of raw and fabricated materials for aircraft requirements ; for controlling and limiting profits in relation to the manufacture of aircraft ; and for giving effect to any such other powers and functions conferred or imposed by the Governor-General.

3. **Appointment of Director-General of Aircraft Production.**—The constitution and details of organization of the Commission were retained until 6th January, 1942, when the Aircraft Production Commission was abolished and under Statutory Rule No. 4 of 1942, National Security (Aircraft Production) Regulations, the production of aircraft was entrusted to the Director-General of Aircraft Production, assisted by an Advisory Committee representative of the chief interests concerned in the Australian aircraft industry.

Under these Regulations, the Director-General of Aircraft Production, who required also to be Director-General of Munitions, was made responsible for the operation and management of factories, workshops and undertakings concerned in the production of aircraft ; for the acquisition by the Commonwealth and the establishment of factories and workshops for the purpose of production of aircraft, and for repair and maintenance work ; for the control of the nature and extent of the output or production of any person or authority engaged or capable of being engaged in the production of aircraft ; for the arrangements, and all action necessary, to secure the supply, manufacture, processing and delivery of aircraft, including maintenance, overhaul, and repair of aircraft ; for the securing of supplies of materials, plant, tools and equipment for those purposes ; and for the employment and training of persons for those purposes.

The Regulations were unchanged until 1st June, 1945, when it was provided (Statutory Rule No. 83 of 1945) that the Permanent Head for the time being of the Department would be the Director-General of Aircraft Production and that the Aircraft Advisory Committee would be disbanded. As from 3rd June, 1946 the position of Director-General of Aircraft Production was abolished (Statutory Rule No. 94 of 1946) and it was provided that the permanent head of the Department would be the Secretary.

4. **The Beaufort Scheme.**—The original Beaufort scheme was based upon (i) the utilization of existing railway organizations and floor space in New South Wales, Victoria and South Australia ; (ii) the erection of large main assembly workshops at Fisherman's Bend (Victoria) and Mascot (New South Wales) for the assembly and fitting out of the aircraft ; (iii) the erection of a main store ; and (iv) the setting up of a central organization to manage the undertaking.

The whole of the physical and managerial organization had to be developed after 1st July, 1939, and while this was being undertaken in Australia the central administration was engaged upon the planning of production. Concurrently, 80 specially selected technicians, consisting of highly-skilled tradesmen, chemists, metallurgists, etc., were sent to England for training.

Under the original agreement, the Bristol Aeroplane Company, designers and manufacturers of the Beaufort, had undertaken to supply all the jigs, tools and fixtures. War conditions prevented the Company from meeting its commitments and it became necessary to undertake the manufacture in Australia of no fewer than 26,000 of the total of 33,000 tools required for the aircraft. Furthermore, it was contemplated that the whole of the raw materials and equipment necessary for the construction of the aircraft included in the initial order for 180 airframes would be obtained from Great Britain, but supplies from that source were interrupted by war conditions and it was necessary to arrange for the obtaining of supplies from the United States of America.

The first Australian Beaufort—an experimental machine—made its first flight on 5th May, 1941. The first production Beaufort was completed in July, 1941, and accepted by the R.A.A.F. the following month. The hundredth Beaufort was delivered in August, 1942, 400 by August, 1943, and 700 by August, 1944.

5. **Production of Beaufighters.**—Authority was given by War Cabinet in December, 1942, for the production of Beaufighters in the Government workshops, concurrently with the tapering off of Beaufort production when the programme of 700 Beauforts was approaching completion. The first Australian Beaufighter, a type closely related structurally to the Beaufort, was delivered to the R.A.A.F. on 31st May, 1944. Both Beauforts and Beaufighters were being delivered until the Beaufort programme was

completed in August, 1944, at 700 aircraft. By the end of the war, 329 Beaufighters had been delivered and production was then planned on the basis of completing only those aircraft which were already in an advanced stage of assembly, representing total delivery of 364 Beaufighters, the last being delivered in January, 1946.

6. *Production of Lincolns.*—Before Beaufighter deliveries had commenced, technical personnel from the Government workshops had been sent to England to study the technique adopted in the works of A. V. Roe & Co. Ltd. in the production of Lancaster aircraft which had been authorized by War Cabinet for manufacture in Australia on the recommendation of the Aircraft Production Mission, 1943. The Mission, comprising representatives of the Department of Air and the Department of Aircraft Production, visited the United States of America and Great Britain early in 1943 to study the latest types of aircraft being developed by the Allied Nations and to determine the most suitable types of fighter and bomber aircraft for production in Australia. The Lancaster heavy bomber was recognized as having no equal in range or bomb-load for its all-up weight and the type selected for production in Australia incorporated so many improvements and design changes compared with earlier Lancasters that the machine was renamed the Lincoln. In addition to making heavy bombers, the Government workshops will also make a number of Tudor military transports, the commercial version of the Lincoln. The first Australian Lincoln was delivered in May, 1946.

7. *The Commonwealth Aircraft Corporation Pty. Ltd.*—(i) *Wirraway and Boomerang Production.* The Commonwealth Aircraft Corporation Pty. Ltd., established in 1937, had commenced the production of Wirraway advanced trainer and general purpose aircraft, which were based on a design developed by North American Aviation Inc. The company was also manufacturing single row Wasp 650 h.p. 9-cylinder radial aircraft engines for installation in the Wirraway aircraft.

Wirraway production continued uninterruptedly until early in 1942 when it was decided by War Cabinet that the production of trainer aircraft would cease in order to enable all facilities to be devoted to the manufacture of operational types of aircraft. Further Wirraways to replace R.A.A.F. wastage were delivered in limited numbers from March, 1944 on. In the meantime, the Company had designed, manufactured, and between May, 1941 and June, 1942 delivered to the R.A.A.F. substantial numbers of Wackett Trainers, a low-wing monoplane type of trainer intermediate between the Tiger Moth elementary trainer and the Wirraway. Boomerang interceptor-fighter aircraft, built to a design developed by the Commonwealth Aircraft Corporation from the Wirraway, were delivered by the Company between August, 1942 and January, 1945. Concurrently with the production of Boomerangs, the Corporation was developing a bomber to its own design but work on this project was terminated at the direction of War Cabinet, when the first machine was completed, in order to enable all available manpower to be concentrated on the manufacture of Mustang high altitude fighter aircraft.

(ii) *Mustang Production.* The Mustang, designed by North American Aviation Inc. to meet a British specification, was the fighter type selected by the Australian Aircraft Production Mission, 1943, and the first locally made machines of that type were delivered during May, 1945. Although a reduction was made in the total number of Mustangs to be produced following the end of the war, the company is continuing production on a reduced scale to meet the peace-time requirements of the R.A.A.F.

8. *De Havilland Aircraft Pty. Ltd.*—(i) *General.* De Havilland Aircraft Pty. Ltd. was engaged in the manufacture of types of aircraft designed by the De Havilland Company in England but engines and metal parts were imported. At the outbreak of war, the company was instructed to proceed with the production of large numbers of Tiger Moth elementary trainer aircraft.

(ii) *The Tiger Moth.* The first of these machines was delivered during May, 1940, and deliveries continued uninterruptedly until August, 1942, when more than 1,000 aircraft had been completed, including some hundreds that were sent to other British countries and to the Netherlands East Indies. A small number of additional aircraft to replace R.A.A.F. wastage was delivered from September, 1944 to January, 1945.

(iii) *Other Production*.—From October, 1942 to June, 1943 deliveries were made of De Havilland Dragon aircraft fitted out for different types of services, some as transports, others as training machines for wireless-air gunners' and air-navigators' schools, and still others as ambulances. A small number of gliders was designed and built between October, 1942 and July, 1943, but quantity production was not found to be necessary. From that time on until the end of the war the De Havilland Company was engaged in the manufacture of Mosquito fighter-bomber aircraft, the first aircraft having been delivered in March, 1944. Since VP-Day, the rate of production of Mosquitoes was restricted to provide for R.A.A.F. requirements on a peace-time basis. During August, 1946 Cabinet authorized the production of Vampire jet-propelled fighter aircraft for the R.A.A.F., and this project is now in hand.

9. *Manufacture of Engines*.—Although the Australian Beaufort was originally designed for the Bristol Taurus engine, it became necessary because of war conditions to fit the more powerful American Pratt & Whitney twin-row Wasp engines instead, even though the change involved important modifications to the airframe. A factory was established at Lidcombe, New South Wales, for the manufacture of the American engine.

Because the Commonwealth Aircraft Corporation Pty. Ltd. had successfully developed the production of single row Wasp engines, that Company was invited by the Commonwealth Government to establish and conduct the Lidcombe engine factory as a Government annexe. The first 1,200 h.p. 14-cylinder twin row Wasp radial engine was delivered during November, 1941, and the last of 870 required, together with vast quantities of spare parts, had been delivered by July, 1945.

As the latest types of aircraft approved for production in Australia—Mosquito, Mustang, Lincoln and Tudor—are all fitted with Rolls Royce Merlin in-line engines, the Lidcombe engine factory was converted to enable the Merlin engine to be produced and factory tests of the first Australian-made engines have taken place.

To provide engines for Tiger Moth and Dragon aircraft manufactured by De Havilland Aircraft Pty. Ltd., the production of Gipsy Major engines was undertaken by General Motors-Holden's Ltd. and 1,300 of these 130 h.p. 4-cylinder engines were delivered between September, 1940, and March, 1944.

In August, 1946 the Commonwealth Aircraft Corporation Pty. Ltd. was authorized to produce Rolls Royce "Nene" gas-turbine engines for installation in the Vampire aircraft referred to in para. 8 (iii) above.

10. *Manufacture of Propellers, Etc.*—Annexes were established also for the production of propellers for all types of aircraft by De Havilland Aircraft Pty. Ltd.; of retractable under-carriages for Beaufort, Beaufighter and Lincoln aircraft by National Motor Springs Pty. Ltd.; of heavy forgings for engines and propellers by the Australian Aluminium Company; of engine electrical accessories by Tecnico Ltd.; and of gun turrets and armament, aero instruments, and aluminium sheet, strip, bar and extrusions to aircraft specifications.

11. *Expansion of Repair and Overhaul Facilities*.—Concurrently with the establishment and expansion of capacity for the production of aircraft and the major aircraft components, facilities were being rapidly expanded for the repair and overhaul of aircraft outside R.A.A.F. establishments, particularly of aircraft associated with the Empire Air Training Scheme whose maintenance was the responsibility of the Department of Aircraft Production. Hangars, engine overhaul shops, machine shops and stores were erected by the Commonwealth near all mainland capital cities and the civil airline operators were engaged as servicing contractors to handle the work. With the arrival of the United States Army Air Forces in Australia in 1942, the scope and volume of this work were greatly expanded and special additional facilities were set up. By the end of the war, nearly 12,000 engines and 4,250 airframes had been repaired and overhauled for the R.A.A.F., the United States Army Air Forces, the Royal Navy and the Netherlands East Indies Forces. In addition millions of engine and airframe components and accessories, instruments, propellers, etc., had been overhauled.

Spare parts, raw materials, etc., supplied in response to demands placed on the Department of Aircraft Production by the R.A.A.F. and the other authorities whose aircraft were handled, had a total value in excess of £30,000,000 during the war years.

12. **Personnel.**—Persons employed in the aircraft industry, excluding those engaged in the manufacture of parts in private engineering establishments handling sub-contracts, increased to more than 44,000 in 1944, as is shown in the following statement :—

AIRCRAFT INDUSTRY : PERSONS EMPLOYED, AUSTRALIA.(a)

In June—					On production.	On Maintenance.	Total.
1940 ..	..	..	..	..	4,903	(b)	4,903
1941 ..	..	..	..	..	11,887	(b)	11,887
1942 ..	..	..	..	..	23,654	3,166	26,820
1943 ..	..	..	..	..	31,314	8,250	39,564
1944 ..	..	..	..	..	33,564	10,538	44,102
1945 ..	..	..	..	..	29,537	4,847	34,384
1946 ..	..	..	..	..	11,355(c)	270	11,625

(a) Excludes those engaged in the manufacturing of parts in private engineering establishments handling sub-contracts. (b) Not available. (c) Includes personnel employed on maintenance work in departmental workshops and others engaged in disposal activities.

13. **Numbers of Aircraft and Engines Produced.**—Production of aircraft and engines during each of the war years is set out hereunder :—

AIRCRAFT AND ENGINES : PRODUCTION, AUSTRALIA.

Type.	1939-40.	1940-41.	1941-42.	1942-43.	1943-44.	1944-45.	1945-46.
AIRCRAFT.							
Beaufort ..	..	..	76	285	312	27	..
Beaufighter ..	..	..	..	..	3	281	80
Lincoln ..	..	..	..	..	..	..	1
Wirraway ..	75	225	320	..	30	60	46
Wackett Trainer ..	..	13	187	..	..	..	..
Boomerang ..	..	..	..	105	103	42	..
Mustang ..	..	..	..	..	..	4	73
Tiger Moth ..	8	453	508	66	..	35	..
D.H. Dragon ..	..	..	..	87	..	..	..
Mosquito ..	..	..	..	..	6	86	91
Gliners ..	..	..	..	6	2	..	..
Total ..	83	691	1,091	549	456	529	291
ENGINES.							
Twin-row Wasp ..	..	..	66	231	343	228	2
Single-row Wasp ..	76	195	291	86	32	..	..
Gipsy Major ..	..	319	318	461	202	..	..
Total ..	76	514	675	778	577	228	2

14. **Peace-time Establishment.**—It has been decided by the Commonwealth Government that the capacity established and the experience gained during the war years in the production of trainer and operational aircraft for defence purposes will be retained as a fundamental feature of Australia's peace-time establishment. To this end, limited

production of the most modern types of fighter and bomber aircraft will be continued each year to equip the permanent R.A.A.F. establishments and to ensure that, should the necessity again arise, the production of operational aircraft can be rapidly expanded.

To meet the limited peace-time demands of the R.A.A.F., the Government aircraft workshops to be retained in operation will be those at Fisherman's Bend and Essendon (Victoria) only. Single-engine fighter types of aircraft will continue to be produced by the Commonwealth Aircraft Corporation Pty. Ltd. and twin-engine long-range fighters by De Havilland Aircraft Pty. Ltd.

§ 9. Expenditure on Defence.

Details of expenditure on Defence and 1939-45 War Services will be found in Chapter XVIII., Public Finance, B.—Commonwealth Finance, § 6. Cost of Defence and 1939-45 War Services.

§ 10. Australian Contingents.

1. **General.**—In earlier issues of the Official Year Book an account is given of the composition, etc., of the Australian contingents dispatched for service in the New Zealand and Sudan Campaigns, in South Africa, China, and the 1914-19 War (see Official Year Book No. 12, pp. 1019 *et seq.*).

2. **Australian Troops (1914-19 War).**—Particulars of the enlistments, casualties, honours and decorations won, and engagements of the Australian Imperial Force during the 1914-19 War are given in Official Year Book No. 16, pp. 628 *et seq.*

3. **Australian Troops (1939-45 War).**—For details of the Australian Military Forces in the 1939-45 War see §§ 1 and 4-6 of this Chapter.

§ 11. War Gratuities.

1. **1914-19 War.**—Reference is made in earlier issues of the Official Year Book (see No. 15, p. 930) to the bonus payable in accordance with the War Gratuity Acts of 1920 as a war service gratuity to soldiers and sailors who served in the 1914-19 War. Owing to limitations of space this information cannot be repeated, but it may be noted that the gratuity was paid in Treasury Bonds, maturing not later than 31st May, 1924, and bearing interest at 5½ per cent. In necessitous cases payment was made in cash when desired by the person entitled. The first gratuities were made available about the beginning of June, 1920. The total amount paid to 30th June, 1945 was £27,515,026 and bonds amounting to £11,965 had not been redeemed at that date.

2. **1939-45 War.**—(i) **General.** The War Gratuity Act 1945, which began to operate on 31st August, 1945, provides for payment to members of the forces of war gratuity (a) at the rate of £3 15s. per month of overseas service and of certain subsequent periods in Australia, and (b) at the rate of 15s. per month of Australian service after 6th December, 1941, other than that for which payment at the overseas rate is made. New Guinea, Papua and Norfolk Island are regarded as overseas areas after 6th December, 1941. Qualifying service necessary for gratuity ceases on discharge or twelve months after the cessation of hostilities if the member is still serving.

(ii) **Overseas Rate.** Gratuity at the overseas rate is granted in respect of the full term of service overseas, subject to a qualifying period of 90 days continuous or 180 days in the aggregate in twelve months, and for 90 days after the return of a member to Australia. In addition, if the member is invalided back to Australia, the period spent on return in hospital or in convalescence will also qualify at the overseas rate. All members who perform overseas qualifying service will be paid a minimum of twelve months' gratuity at the overseas rate, irrespective of whether the full twelve months period had been completed or not. Service overseas must have been as a member of a body, contingent or detachment of the defence force, subject to necessary adaptations to cover the Navy and the Air Force.

(iii) *Australian Rate.* The Australian rate of 15s. per month will be paid for the period following the outbreak of the war with Japan on 7th December, 1941, subject to a qualifying period of six months' service. A member who had already completed six months' service on that date would qualify as from 7th December.

(iv) *Additional Gratuity in Case of Death.* In cases of death where members of the family were totally dependent on the deceased member, it is provided that the minimum payment shall be equivalent to three years' gratuity calculated at the overseas gratuity rate. This applies to deaths due to war service either overseas or in Australia, and covers not only deaths occurring during qualifying service, but also deaths of members eligible for gratuity, which occurred between date of discharge and a date twelve months after the end of the war. It also applies to deaths of members who had no overseas service and who, having died in Australia before completion of six months' service on or after 7th December, 1941, did not qualify for gratuity payment.

In respect of all other cases of death, overseas and in Australia, due to war service, gratuity at the rate accruing to the member at the date of notification of his death will be continued for a further seven months. Because of the provision for minimum payment of twelve months' gratuity for overseas qualifying service the minimum payment for deaths on overseas service will be for one year and seven months.

Missing members of the forces and prisoners-of-war will qualify for gratuity in respect of the time they were recorded as missing or prisoners-of-war. Should they ultimately be reported dead, the gratuity will run for seven months subsequent to notification of death.

(v) *Entitlement and Payment.* Entitlement to gratuity will be established generally six months after the cessation of hostilities. No bonds will be issued, but the member will be notified of the amount to his credit and five years later this will be paid to him in cash or into his bank account. Payment may be made at earlier dates to the widow of a member, to a totally dependent or necessitous mother or older sister if acting in the capacity of a parent, to blind and permanently incapacitated members, or where the amount credited is less than £10.

Payment will include compound interest at the rate of 3.25 per cent. per annum on the yearly credit balances. Both gratuity and interest will be tax free and will not be regarded as property or income for purposes of the Invalid and Old-age Pensions Act, the Australian Soldiers' Repatriation Act or the Widows' Pensions Act. Interest of members in their gratuity is inalienable. In approved cases the gratuity may be made available for the erection or purchase of a home for the member.

(vi) *Administration.* A Registrar of War Gratuities has been appointed to have control over the Register of War Gratuities in which will be kept the accounts of all persons entitled to war gratuity.

The total liability on account of war gratuity is estimated to be £75,000,000. Expenditure during the year 1945-46 was £143,000. Provision is made for financing the Act by appropriation from Consolidated Revenue Fund and by borrowing.

CHAPTER XXVIII.

MISCELLANEOUS.

§ 1. Patents, Trade Marks and Designs.

1. *Patents.*—(i) *General.* The granting of patents is regulated by the Commonwealth Patents Act 1903-1946, which, in regard to principle and practice, has the same general foundation as the Imperial Statutes, modified to suit Australian conditions. The Act is administered by a Commissioner of Patents. Fees totalling £10 are sufficient to obtain letters patent for the Commonwealth of Australia and the Territories of Papua, New Guinea and Norfolk Island. Renewal fees are payable as follows:—£1 before the expiration of the fifth year and an amount progressively increasing by ten shillings before the expiration of each subsequent year up to the fifteenth, when the fee becomes £6. If a renewal fee is not paid when it becomes due, an extension of time up to twelve months may be granted on grounds specified in the Act, and subject to the payment of prescribed fees. An amendment to the Act in September, 1946, permits the public to inspect an application, complete specification and provisional specification (if any) after the complete specification has been lodged. Previously specifications were made public only after an application had been accepted, in many cases as much as a year after the date of lodgment.

(ii) *Summary.* The number of separate inventions in respect of which applications were filed during the years 1939 and 1943 to 1946 is given in the following table, which also shows the number of letters patent sealed in each year:—

PATENTS : AUSTRALIA.

Particulars.	1939.	1943.	1944.	1945.	1946.
No. of applications	5,740	4,604	5,860	7,349	9,072
No. of applications accompanied by provisional specifications .. .	3,161	2,242	2,548	3,600	4,321
Letters patent sealed during each year	3,141	1,424	1,243	1,248	1,901

(iii) *Revenue.* The revenue of the Commonwealth Patent Office during the years 1939 and 1943 to 1946 is shown hereunder:—

PATENTS : REVENUE, AUSTRALIA.

Particulars.	1939.	1943.	1944.	1945.	1946.
	£	£	£	£	£
Fees collected under Patents Act	45,581	46,852	56,482	65,479	83,871
Receipts from publications	1,828	1,184	1,351	1,668	2,293
Total	47,409	48,036	57,833	67,147	86,164

2. **Trade Marks and Designs.**—(i) *Trade Marks.* Under the Trade Marks Act 1905 the Commissioner of Patents is also Registrar of Trade Marks. This Act has been amended from time to time, the last amendment having been made in 1936. Special provisions for the registration of a "Commonwealth Trade Mark" are contained in the Act of 1905, and are applicable to all goods included in or specified by a resolution passed by both Houses of Parliament that the conditions as to remuneration of labour in connexion with the manufacture of such goods are fair and reasonable.

(ii) *Designs.* The Designs Act 1906, as amended by the Patents, Designs and Trade Marks Act 1910 and the Designs Acts 1912, 1932, 1933 and 1934, is now cited as the Designs Act 1906-1934. Under this Act a Commonwealth Designs Office has been established, and the Commissioner of Patents appointed "Registrar of Designs".

(iii) *Summary.* The following table shows the applications for trade marks and designs received and registered during the years 1939 and 1943 to 1946:—

TRADE MARKS AND DESIGNS: AUSTRALIA.

Applications.			1939.	1943.	1944.	1945.	1946.
RECEIVED.							
Trade Marks	..	..	1,992	1,227	1,935	2,792	4,142
Designs	..	..	865	322	458	981	1,544
REGISTERED.							
Trade Marks	..	..	1,580	788	669	1,003	1,649
Designs	..	..	736	103	224	668	771

(iv) *Revenue.* The revenue of the Trade Marks and Designs Office during the years 1939 and 1943 to 1946 is given hereunder:—

TRADE MARKS AND DESIGNS: REVENUE, AUSTRALIA.

Particulars.	1939.			1943.			1944.			1945.			1946.		
	Trade Marks.	Designs.	Publications.	Trade Marks.	Designs.	Publications.	Trade Marks.	Designs.	Publications.	Trade Marks.	Designs.	Publications.	Trade Marks.	Designs.	Publications.
Fees collected under Commonwealth Acts	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£
..	15,951	1,082	19	8,806	812	19	4,519	987	8	14,644	1,509	12	19,245	2,220	15

No fees in respect of Trade Marks have been collected under State Acts since 1922.

§ 2. Copyright.

1. *Legislation.*—Copyright is regulated by the Commonwealth Copyright Act 1912-1935 wherein, subject to modifications relating to procedure and remedies, the British Copyright Act of 1911 has been adopted and scheduled to the Australian law.

Reciprocal protection of unpublished works was extended in 1918 to citizens of Australia and of the United States of America under which copyright may be secured in the latter country by registration at the Library of Congress, Washington. The Commonwealth Government promulgated a further Order in Council which came into operation on 1st February, 1923, and extended the provisions of the Copyright Act to the foreign countries of the Copyright Union, subject to the observance of the conditions contained therein.

2. **Applications and Registrations.**—The following table shows under the various headings the number of applications for copyright received and registered, and the revenue obtained for the years 1939 and 1943 to 1946 :—

COPYRIGHT : AUSTRALIA.

Particulars.	1939.	1943.	1944.	1945.	1946.
Applications received—					
Literary	1,438	1,202	1,479	1,469	1,613
Artistic	53	29	34	86	66
International ..	3	..	..	..	..
Applications registered—					
Literary	1,359	1,140	1,162	1,448	1,291
Artistic	38	76	23	53	69
International ..	1	..	..	..	..
Revenue	£ 411	310	395	377	438

§ 3. Local Option and Reduction of Licences.

Local option concerning the sale of fermented and spirituous liquors is in force in South Australia and Tasmania. In Victoria, Queensland and Western Australia State-wide polls have superseded the local polls, while in New South Wales the taking of local option polls has been suspended since 1913, though a special State-wide referendum was taken in 1928 on the question of State-wide prohibition with compensation. At the poll held in Victoria on 8th October, 1938, the voting was as follows :—

For abolition of licences	368,676
Against abolition of licences	721,704
Informal	7,648

The percentage of electors who voted was 95.38.

In all States other than South Australia a maximum number is established above which licences shall not be increased except under certain specified conditions (the principal case being the greater demand for service of a considerably increased population). Licences Reduction Boards are in operation in New South Wales and Victoria and in all other States machinery exists for the reduction of licences where it seems desirable or where there is a local option vote in favour of the reduction of licences.

In earlier issues of the Official Year Book (see No. 22, pp. 1005–8), details, by States, were published of polls taken and of the operations of the Licences Reduction Boards.

§ 4. Lord Howe Island.

Lord Howe Island is situated in latitude 31° 30' south, longitude 159° 5' east, about 430 miles north-east of Sydney, and has an area of 3,220 acres. The climate is mild and the rainfall abundant, but on account of the rocky formation of its surface only about 300 acres are suitable for cultivation, most of which are devoted to the production of *Kentia Palm Seed*. The land belongs to the Crown and is occupied rent-free on sufferance.

Discovered in 1788, the Island was first settled by a small party of Maoris in 1853; afterwards a colony was settled from Sydney. Constitutionally the Island is a dependency of New South Wales and is included in King, one of the electorates of Sydney. A Board of Control at Sydney manages the affairs of the Island and supervises the palm seed industry. The population was 161 at the Census of 30th June, 1933, and 152 at 31st December, 1942.

§ 5. Commonwealth Council for Scientific and Industrial Research.

1. **General.**—By the Science and Industry Research Act 1926, the previously existing Commonwealth Institute of Science and Industry was reorganized under the title of the Council for Scientific and Industrial Research. An account of the organization and work of the former Institute was given in earlier issues of the Official Year Book. (See No. 14, p. 1061.)

2. **Science and Industry Research Act 1920–1945.**—This Act provides for a Council, consisting of—

- (a) Five members nominated by the Commonwealth Government;
- (b) the Chairman and Vice-Chairman of each State Committee constituted under the Act; and
- (c) such other members as the Council, with the consent of the Minister, co-opts by reason of their scientific knowledge.

The Commonwealth nominees form an Executive Committee which may exercise, between meetings of the Council, all the powers and functions of the Council, of which the principal are as follows:—(a) To initiate and carry out scientific researches in connexion with primary or secondary industries in Australia; (b) to train research workers and to establish industrial research studentships and fellowships; (c) to make grants in aid of pure scientific research; (d) to establish industrial research associations in any industries; (e) to test and standardize scientific apparatus and instruments; (f) to establish a Bureau of Information; and (g) to act as a means of liaison between Australia and other countries in matters of scientific research.

3. **Science and Industry Endowment Act 1926.**—Under this Act, the Government established a fund of £100,000, the income from which is used to provide assistance (a) to persons engaged in scientific research; and (b) in the training of students in scientific research. Provision is made for gifts or bequests to be made to the fund, which is controlled by a trust consisting of the Commonwealth nominees on the Council. In accordance with the Act, arrangements have been made to send a number of qualified graduates abroad for training in special fields of work.

4. **Work of the Council.**—The activities of the Council for Scientific and Industrial Research have necessitated a widespread and adaptable organization. Undesirable centralization has been avoided mainly in two ways. In the first place the policy has been followed of establishing laboratories in different places in the Commonwealth wherever the necessary facilities, contacts and other suitable conditions could best be found. Secondly, a State Committee, widely representative of scientific and industrial interest, has been established in each of the six States. These Committees advise the Council on general matters and on particular questions of investigation and research.

For about twelve years after its establishment, the work of the C.S.I.R. was devoted mainly to the solution of problems affecting the agricultural and pastoral industries. Unlike manufacturing concerns, which can often employ their own scientific staffs, the farmer and the pastoralist are dependent on outside help for the solution of their problems which require research. It was a recognition of the greater need of the primary producer which directed the Council's early policy. However, in 1937, the Commonwealth Government decided to extend the activities of the C.S.I.R. so as to provide assistance to secondary industries, and the Council proceeded to establish several laboratories for

work in that field ; it was thus in the fortunate position of being able to render to these industries assistance of vital importance almost immediately after the outbreak of war. In fact, the remarkable technological advances and developments in secondary industrial production during the war would to a large extent have been impossible had it not been for the assistance rendered by scientific research, and this may well serve as a forceful illustration of what may be accomplished in times of peace.

For the purpose of carrying out its research work the Council has established a number of Divisions and Sections. The Divisions, of which there are now fourteen, comprise the major establishments for which special laboratory buildings have been erected and equipped ; the Sections generally include establishments which have not reached a stage of development, so far as the scope and magnitude of their operations are concerned, to justify their designation as Divisions. As the Council's investigations extend on a Commonwealth-wide basis and as many of the investigations which are being conducted—particularly those concerned with problems affecting the agricultural and pastoral industries—necessitate experimental work in the field, a number of field stations have been established in various parts of Australia.

The Divisions which have been established are as follows :—

- (1) Plant Industry, with main laboratories at Canberra and field stations.
- (2) Economic Entomology, with main laboratories at Canberra and field stations.
- (3) Animal Health and Production, with main laboratories in Melbourne and Sydney and field stations.
- (4) Biochemistry and General Nutrition, with main laboratories at Adelaide and field stations.
- (5) Soils, with main laboratories at Adelaide and extensive operations in the field.
- (6) Forest Products, with main laboratories in Melbourne and field experiments.
- (7) Food Preservation and Transport, with main laboratories at Homebush, New South Wales, and a subsidiary laboratory in Brisbane.
- (8) Fisheries, with main laboratories at Cronulla, New South Wales, and experimental work in coastal waters of Australia.
- (9), (10), (11), Metrology, Physics, and Electrotechnology comprising the National Standards Laboratory at Sydney.
- (12) Radiophysics, with main laboratory at Sydney.
- (13) Aeronautics, with laboratories in Melbourne.
- (14) Industrial Chemistry, with laboratories in Melbourne.

The following are the Sections :—

- (1) Research Station, Murray Irrigation Area, Merbein, Victoria.
- (2) Irrigation Research Station, Griffith, New South Wales.
- (3) Tribophysics, Melbourne.
- (4) Dairy Products, Melbourne.
- (5) Mineragraphic Investigations, Melbourne.
- (6) Ore-dressing Investigations, Melbourne, Adelaide, and Kalgoorlie.
- (7) Building Materials Research, Melbourne.
- (8) Flax Research, Melbourne.

In addition to its investigational work, the Council maintains an Information Service which deals with inquiries covering a wide range of scientific and technical subjects. Since the outbreak of war the Council has established Scientific Research Liaison Offices in London and Washington. There is also a Section of Mathematical Statistics, with head-quarters at the University of Adelaide ; the main functions of this Section are (a) to provide the various Divisions and Sections of the Council with advice as to the proper planning of experimental work so as to obtain results which are of the highest degree of accuracy, (b) to assist the Divisions and Sections in the analysis of experimental data and (c) to carry out research in statistical theory and its application to practical problems.

The Council's Head Office, with administrative and executive staff and central library, is in Melbourne. The funds for the Council are provided from two main sources, viz., from Commonwealth revenue by Parliamentary appropriation and from industry directly or indirectly by way of contributions and special grants. The fact that contributions and grants account for over one-eighth of the total annual expenditure indicates that C.S.I.R. has succeeded in a very large measure in gaining the confidence of the public.

The activities of C.S.I.R. are now so comprehensive in their scope and so widely distributed that it is not an easy matter to present in a concise form an adequate picture of them. For details of the investigations in progress reference should be made to the Annual Reports of the Council.

§ 6. Australian Institute of Anatomy.

1. *Foundation of Institute.*—The Australian Institute of Anatomy, situated in Canberra, occupies a monumental building erected by the Commonwealth Government under the Zoological Museum Agreement Act of 1924. Prior to the passing of this Act, the Commonwealth Government had expressed regret that the Australian Nation possessed neither a collection of specimens of the unique and fast disappearing fauna of Australia, nor a Museum in which such specimens could be preserved for future generations. Comparative anatomy is the basis of medical science, and while the importance of a study of Australian animals in the solution of various medical problems had for years been recognized by other countries and steps taken by them to procure specimens for their museums, national effort in this direction was neglected in Australia. The late Sir Colin MacKenzie, the first Director of the Institute of Anatomy, however, very kindly presented to the Commonwealth Government his entire private collection, and this magnificent gift was acquired and provision was made for its proper housing under special legislation by the Commonwealth Government. In 1931 the Institute became an integral part of the Commonwealth Department of Health.

2. *Additions to Original Collection.*—In addition to the original collection, which has been greatly augmented, the following gifts have been made to the Australian Nation, and are on view in the Institute :—

- (1) *Horne-Bowie Collection.*—Dealing with the life of Central Australian aborigines and throwing valuable light on the psychology of this Stone Age people.
- (2) *Burrell Collection.*—This deals with the life history of the platypus, and is unique in the world. The platypus is the most primitive mammal known to science, and is the link between the bird, the reptile and the mammal.
- (3) *Milne Collection.*—This is an anthropological and ethnological collection dealing with the aborigines of New South Wales, and contains many valuable and now unobtainable native weapons and implements.
- (4) *Murray Black Collection* of anatomical material representative of the aborigines of Southern Victoria and the River Murray.
- (5) *Nankivell Collection*, illustrating the anatomy of the aborigines of the Murray Valley.
- (6) *Harvard University Collection.*—This includes a collection of specimens from the Harvard University, U.S.A., representing a carefully worked out epitome of archaeology of the United States of America, and, together with two rare skeletons of primitive North American Indians, was a goodwill gift from the University to the Institute of Anatomy.
- (7) *The Sir Hubert Murray Collection.*—The ethnological and osteological collection of the late Sir Hubert Murray, formerly Lieutenant-Governor of Papua. This deals especially with the anthropology of Papua.
- (8) *The Rabaul Ethnological Collection.*—This concerns chiefly the ethnology of the Mandated Territory of New Guinea.

- (9) *The Basedow Collection*.—This collection has been recently purchased by the Commonwealth Government. It deals especially with the anthropology of Central and Northern Australia and was assembled, after many years of research, by the late Dr. Herbert Basedow of Adelaide, who was formerly Protector of Aborigines.
- (10) Many hundreds of specimens and books received from numerous interested scientists, the most outstanding being those from Mr. E. Hill, of Nagambie, Victoria; Mrs. Harry Burrell, New South Wales; and medical books for the Library from the estates of the late Drs. Molloy, David Grant and Robert Stirling.

3. **Endowments for Orations and Lectures.**—In addition to the aforementioned donations of material, there have been several endowments for Orations and Lectures as follows:—

- (1) *The Halford Oration*.—Endowed with a gift of £1,000 by the family of the late Professor G. B. Halford, founder of the first medical school in the Southern Hemisphere. The interest on this amount is given to a prominent scientist to deliver an oration on a subject suggested by the life and work of the late Professor G. B. Halford.
- (2) *The Anne MacKenzie Oration*.—Founded with a gift of £1,000 by the late Sir Colin MacKenzie, in memory of his mother. The orator receives the annual interest for delivering an oration on any phase of "Preventive Medicine".
- (3) *The Dr. G. E. Morrison Memorial Lecture on Ethnology*.—Founded by Chinese residents in Australia, in memory of a great Australian who rendered important services to China.
- (4) *The Kendall Lecture in Veterinary Science*.—Endowed by the sons of the late Dr. W. T. Kendall, who was the founder of the first Veterinary School in the Southern Hemisphere.
- (5) *The Charles Mackay Lecture on Medical History*.—Endowed by Miss C. MacKenzie with a gift of £607 as a memorial to her grandfather, an educationalist, who arrived in Melbourne in 1852 and died at Kilmore, Victoria.
- (6) *The Cilento Medal*.—This bronze medal has been endowed in perpetuity by Sir Raphael Cilento, Director-General of Health for Queensland, to be awarded annually to the scientist deemed to have accomplished the best practical work for the furtherance of Tropical Hygiene and Native Welfare in Australia.

4. **The Scope of the Institute.**—The building occupies portion of the site which has been reserved for the National University of Australia.

The Institute consists of two separate and distinct entities. Portion of the original collection of anatomical specimens assembled by the late Sir Colin MacKenzie is arranged in two large museums which are open to the general public. The material in these museums has been arranged so as to present simple lessons in human hygiene as well as to display the anatomical features and especially the peculiarities of Australian fauna.

The remainder of the building is devoted to research work where scientific investigations have been carried out in many branches of science. The large collections of bony anatomical material donated by Murray Black have provided most interesting and valuable data on aboriginal diseases. These have been studied in some detail.

In order to provide a reservoir of koalas upon which observations of their peculiar food habits might be made, a small reservation has been acquired, and fenced, about 40 miles from Canberra. In this area abounds the peculiar gum tree on which the Victorian koala feeds. This reservation has already been stocked with koalas from Victoria. Later other animals will be added.

In 1938, following upon the retirement due to ill-health of Sir Colin MacKenzie, the activities of the Institute were extended to interpret more fully the ideas of the founder. In the later years of his life Sir Colin had been keenly interested in the relationship of nutrition to the development of the child. When a section for the study of child growth and development was established by the Commonwealth Department of Health in 1938, the head-quarters were transferred to the Institute.

The section devoted to the study of nutrition has been considerably enlarged and many important problems relating to nutrition of the Australian people have been studied.

§ 7. The Commonwealth Observatory.*

1. **Foundation of Observatory.**—The Observatory was founded primarily to prosecute astrophysical research, including the study of the relations between solar and terrestrial phenomena. A short history of the foundation of the Observatory appears in *Official Year Book No. 19*, p. 979.

2. **Site of Observatory.**—The Observatory is situated on Mount Stromlo which forms part of a ridge of hills about seven miles west of Canberra. The highest point in the ridge is 2,560 feet above sea level, that is, about 700 feet above the general level of the surrounding country.

3. **Equipment.**—Some of the major items of astrophysical equipment have been obtained through the generosity of private donors. Thus a 30-inch reflector was donated by J. H. Reynolds, Esq.; a 9-inch refractor was presented by the late Mr. James Oddie; and the trustees of the late Lord Farnham made available a 6-inch refractor. Other major equipment comprises a solar tower telescope with an 18-inch coelostat and a 3-inch reversible transit instrument. Recently the Observatory was the successful tenderer at a public sale for the purchase from the Victorian Government of the long disused 48-inch reflector of the now closed Melbourne Observatory. It is proposed to modernize this instrument so as to adapt it to the general astronomical programme of the observatory.

4. **Functions of Observatory.**—In addition to covering the type of astrophysical research for which the Observatory was founded, the field of work has been extended to include experimental and theoretical investigations of the ionosphere, and the determination of time. The observatory is now responsible for the accuracy of the Australian Time Service, and considerable attention is being given to the development of this work. Investigations in the fields of double star astronomy, terrestrial magnetism and cosmic rays are also being carried out.

§ 8. Standards Association of Australia.

The Standards Association of Australia is the national standardizing organization of Australia and issues Australian standard specifications for materials and codes of practice.

The Association was established in July, 1929 by the amalgamation of the Australian Commonwealth Engineering Standards Association and the Australian Commonwealth Association of Simplified Practice. It is an independent body in close touch with modern industrial requirements and has the full recognition and support of the Commonwealth and State Governments and industry.

The sole executive authority of the Association is vested in the Council on which industry is fully represented together with official representatives of the Commonwealth and State Governments and their technical departments, and of scientific, professional and commercial organizations. Voluntary assistance is rendered in the drafting of

* Formerly the Commonwealth Solar Observatory.

specifications and codes by more than 4,500 individuals who are experts in their particular fields and are organized into more than 500 committees. Among these are technical committees on: Agricultural Machinery; Aircraft Materials; Air Raid Precautions; Asbestos Cement Pressure Pipes; Bicycle Components and Accessories; Bolts and Nuts; Bore Casing; Building Materials; Camouflage Paints; Cement; Coal and Coke; Colliery Equipment; Containers for the Carriage of Liquids; Copper and its Alloys; Creosote; Dairy Products; Domestic Heating (Solid Fuel); Electrical; Electrical Approvals; Electroplating; Fibrous Plaster Products; Galvanized Products; Gauging Practice; Heavy Textiles; Identification of Piping Systems; Joiners' Glue; Laboratory Glassware; Lead and Zinc; Linen Thread; Locomotive and Railway Rolling Stock; Machine Belting; Marine Plywood; Metal Window Frames; Oil Filters for Motor Vehicles; Paint and Varnish; Pipes and Plumbing; Producer Gas for Motor Vehicles; Quality Control; Railway Permanent Way Materials; Road Materials; Road Making Machinery; Ropes and Cordage; Safety Glass; Scientific Glassware; Shafting, Gearing and Transmission; Statistical Method of Quality Control; Structural Steel; Sugar Mill Machinery; Sulphur Dioxide; Steel Plate, Sheet and Strip; Terne Plate; Textile Testing; Timber; Tool Steels; Tools and Gauges; Tramway Rails; and Wool Unshrinkability.

The Codes Group includes committees on: Boilers and Unfired Pressure Vessels; Concrete Structures; Cranes and Hoists; Electrical Wiring Rules; Explosives; Fire Protection; Interior Illumination of Buildings; Lift Installations; Pump Tests; Refrigeration; Road Signs and Traffic Signals; Steel Structures; Street Lighting; Welding; Work in Compressed Air; and X-ray Equipment. Many committees, such as the Conditions of Contract Committee and the Institutional Supplies Committee, come under the Commercial Standards Division.

The specifications of the Association provide a suitable standard of performance, quality and dimension and an equitable basis for tendering. They help to eliminate redundant qualities and sizes. They enable purchasers to obtain their requirements with greater assurance of satisfaction, with more rapid delivery and without the necessity of drafting individual specifications.

The underlying principles covering the preparation of the specifications and codes are that they shall be in accordance with the needs of industry; that the common interests of producer and consumer be maintained; that periodical revision should keep the work abreast with progress; and that standardization be arrived at by general consent without coercion.

Organizations, companies, firms and individuals interested in the work of the Association are eligible for subscription membership. Members are entitled to free copies of the publications of the Association and to the use of the library and its Special Information Service. Research is undertaken for committees, members of the Association, and industry in general. Many hundreds of inquiries were answered during the last year.

The Association has international affiliations and the standards of all British and foreign countries are filed in the library and are accessible to members. It also administers the Australian National Committees of the International Electrotechnical Commission, the World Power Conference and the International Commission on Large Dams.

The Association is also the representative of the British Standards Institution, and all British standards may be purchased from head-quarters and branch offices in the various States. British Air Ministry (D.T.D.) specifications are also on sale.

The head-quarters of the Association are at Science House, Gloucester-street, Sydney, and branches of the Association are situated at Temple Court, 422 Collins-street, Melbourne; Empire Chambers, cr. Queen and Wharf-streets, Brisbane; Alliance Building, Grenfell-street, Adelaide; Gledden Building, Hay-street, Perth; Premier's Department, Murray-street, Hobart; Department of the Interior, Canberra; and Howard Smith Chambers, Watt-street, Newcastle.

§ 9. Clothing and Food Rationing.

1. *General Administration.*—(i) *Reasons for Rationing.* War conditions necessitated civilian rationing of clothing and certain foodstuffs in Australia. The main reasons for clothing rationing were the serious falling off in imports, increased Service demands, and reduced labour for local production of textiles and making up of garments. The supply to the United Kingdom and the Australian and Allied Services of maximum quantities of foodstuffs necessitated the rationing of sugar, butter and meat, while reduction in imports, consequent upon enemy occupation of Java, necessitated the rationing of tea. In addition to the controls exercised by the Rationing Commission, rationing of certain other commodities is directed by other Departments, e.g., petrol, tobacco, liquor, etc.

(ii) *Personnel of Commission.* Rationing of clothing and foodstuffs is under the control of the Minister for Trade and Customs. A Rationing Commission of three members directs rationing policy. Detailed administration is in charge of a Director of Rationing.

(iii) *Rationing Organization.* Rationing organization consists of a central administration and Deputy Directors of Rationing and staffs located in each capital city, no district offices being maintained. The main annual distribution of civilian food ration books and clothing cards is effected over two days through the electoral organization on lines somewhat similar to those employed for the conduct of an election. Special clothing and food coupon issues are made through the Services and other organizations, and also largely by individual application.

(iv) *Relationship of Commission with Other Departments, etc.* While the Rationing Commission has undertaken the equitable distribution of available supplies of rationed clothing and foodstuffs, the responsibility for production and supplies rests with other Departments. The Director of Clothing (Department of Supply and Shipping) was made responsible in June, 1943 for the control of production of civilian clothing requirements as well as for Service needs, while the Division of Import Procurement (now Central Import Licensing Branch) arranged overseas supplies of textiles, etc. The Tea Control Board handles imports of tea; the Department of Trade and Customs in association with the Queensland Sugar Board supervises sugar production and allocates quantities for civilian consumption, exports, etc.; the Department of Commerce and Agriculture regulates the production and export of butter; the control of meat supplies and allocation over civilian, service and exports demands is the responsibility of the Controller of Meat Supplies who operates under the Minister for Commerce and Agriculture.

2. *Clothing.*—(i) *Reasons for Rationing.* It was apparent in 1942 that with abnormal war conditions involving decrease in imports, reduction in labour available for local production of textiles and manufacture of garments, and increased Service demands, supplies would not be sufficient to meet the civilian demand at normal rates of consumption. Clothing rationing was therefore considered to be the only practicable course to provide for equitable distribution of reduced supplies.

(ii) *Assessment of Ration.* Reviews were made of the stock position of main classes of materials and garments and of the likely rate of future supplies, but the available information was in many respects incomplete. The past average annual replacement rates per man, woman and child in respect of the main types of garments were also determined as far as practicable. The average replacement rates were then reviewed in the light of what was considered to be the minimum replacement rates practicable. In determining the latter, it was considered on the approximate information available that, broadly, men could afford to suffer a reduction on pre-war rate of consumption of slightly less than half, women one-third, children one-fifth (subject to supplementary issues for out-size children), while purchases for infants should remain at pre-war levels. Even on the basis of such minimum requirements it was found that the over-all annual consumption would be in excess of estimated supplies. It was determined, however,

that the initial scale should be based on essential minimum requirements and that everything possible should be done to obtain supplies up to this level by endeavouring to stimulate more efficient local production and to obtain essential imports from the United Kingdom, United States of America, India, etc. The Services co-operated by temporarily reducing their requirements for certain classes of goods.

(iii) *Basis of Scale.* Rationing procedure and clothing scales already operating in the United Kingdom and other countries were closely examined and the general organization of the United Kingdom was largely followed. In determining coupon ratings, the four main sections of the community, i.e., men, women, children 5-15 years and infants were considered separately, and in the determination of ratings for individual garments the factors of their life, utility, amount of material required for manufacture, and the likely supply position were taken into consideration. A Clothing Scale suitable to Australian requirements was thus evolved. To compensate for the additional wear on clothing by persons engaged in industry, lower coupon ratings were fixed for certain types of working garments. Except for minor exceptions of lower ratings for cheap frocks and shoes and for damaged and imperfect goods, no differentiation has been made in coupon ratings on account of price and quality.

Rationing of clothing by coupons was introduced on 15th June, 1942, and extended to wearing apparel, headwear, footwear, handknitting wool and piece goods. The coupon ratings on the more important articles and average consumption rates are shown later.

(iv) *Alteration to Scale.* Alterations in the original coupon scale have been made from time to time to correct anomalies, and as the supply position of certain articles has deteriorated or improved. The following were the main alterations :—

(a) *Household Drapery.* In June, 1943, household drapery and furnishings were added to the list of coupon goods, etc., mainly on account of the increasing shortage of cotton materials, manchester, etc., and as a means of stiffening the clothing scale generally.

In view of the improved local supply position, substantial reductions in coupon ratings were made in June and July, 1945 on woollen garments, knitted underwear, hosiery and woollen piece goods, the reduction on the latter being designed to stimulate home dressmaking and so relieve the shortage in making-up labour.

(b) *Revised Scale, 15th November, 1945.* In November, 1945, a forward review indicated a continued shortage in the overseas cotton and rayon supply position for 1946 and into 1947, while the local supply position of woollen textiles and knitted goods generally showed improvement, largely consequent upon the diversion of production from service to civilian requirements. A general revision of the Clothing Coupon Scale was made as from 15th November, 1945, involving the following :—

- (1) Removal from coupon control of articles in reasonable supply, i.e., knitwear, footwear, headwear and other minor articles; handknitting yarn having previously been exempted.
- (2) On all-wool piece goods and garments lower ratings than for other materials and garments.
- (3) A general readjustment of the coupon ratings on articles still couponed to provide for average requirements from 15th November, 1945 to 31st December, 1946 being covered by 56 coupons instead of the previous annual issue of 112 coupons. (This obviated the necessity for a further issue of Clothing Ration Cards in June, 1946.)

(v) *Clothing Coupon Scale.* The following tables set out the annual replacement rate estimated by the Commission, the coupon ratings and the average annual coupon consumption on main articles of clothing for men and women under—

A. The scale operating prior to June, 1945;

B. The scale operating as from 15th November, 1945.

Figures for minor articles such as handkerchiefs, gloves, ties, etc., which were rationed prior to June 1945, are not included.

CLOTHING RATIONING SCALES.

Article.	Estimated Annual Replacement. (a)	Scale "A"—in force prior to June, 1945.		Scale "B"—operative from 15th November, 1945.	
		Average Coupon Rating per Article.	Annual Coupon Expenditure per Head.	Average Coupon Rating per Article.	Annual Coupon Expenditure per Head.
MEN.					
Hats	0.6	6	3.6	C.F. (b)	..
Overcoats—Wool	0.07	38	2.7	20	1.4
Other	0.03	40	1.2	30	0.9
Suits—					
Jackets	0.5	20	10.0	13	6.5
Trousers	0.8	10	8.0	8	6.4
Waistcoats	0.3	8	2.4	6	1.8
Shirts—Woven	1.2	12	14.4	12	14.4
Knitted	0.2	8	1.6	C.F.	..
Collars	2.0	1	2.0	C.F.	..
Pullovers and Cardigans	0.7	8	5.6	C.F.	..
Singlets—Knitted	0.5	5	2.5	C.F.	..
Woven	0.1	5	0.5	3	0.3
Athletics—Knitted	1.2	5	6.0	C.F.	..
Underpants—Knitted, Long	0.3	6	1.8	C.F.	..
Short	0.5	5	2.5	C.F.	..
Woven, Short	0.2	5	1.0	3	0.6
Pyjamas	0.9	15	13.5	15	13.5
Socks	2.3	4	9.2	C.F.	..
Dressing Gowns—Wool	0.05	15	0.8	9	0.5
Other	0.05	15	0.7	15	0.7
Swim Trunks.. ..	0.2	5	1.0	C.F.	..
Slippers	0.3	5	1.5	C.F.	..
Boots and Shoes	1.3	12	15.6	C.F.	..
Balance available for Household Drapery and minor articles of clothing and for slightly heavier purchases from November, 1945a	..	..	3.9	..	4.0
Total Coupon Expenditure for twelve months .. ..	..	..	112.0	..	51.0(c)

WOMEN.

Hats	1.0	3	3.0	C.F.	..
Overcoats—Wool	0.12	27	3.3	14	1.7
Other	0.12	27	3.2	20	2.4
Jackets—Wool	0.1	16	1.6	11	1.1
Other	0.1	16	1.6	13	1.3
Skirts—Wool	0.4	7	2.8	4	1.6
Other	0.2	7	1.4	7	1.4
Dresses—Wool	0.3	13	3.9	7	2.1
Other	1.2	13	15.6	13	15.6
Pullover and Blouses—Knitted	1.0	7	7.0	C.F.	..
Woven	0.8	6	4.8	6	4.8
Slips and Petticoats—Knitted	0.6	8	4.8	C.F.	..
Woven	0.1	8	0.8	8	0.8

(a) Scale "B" allows for a slight increase in the replacement rate for those articles remaining in the scale from 15th November, 1945. (b) C.F. = Coupon-free. (c) Equivalent to 56 coupons for 13½ months (15th November, 1945 to 31st December, 1946).

CLOTHING RATIONING SCALES—continued.

Article.	Estimated Annual Replacement. (a)	Scale "A"—in force prior to June, 1945.		Scale "B"—operative from 15th November, 1945.	
		Average Coupon Rating per Article.	Annual Coupon Expenditure per Head.	Average Coupon Rating per Article.	Annual Coupon Expenditure per Head.
WOMEN—continued.					
Vests and Singlets—Knitted ..	1.0	4	4.0	C.F. (b)	..
Woven ..	0.2	4	0.8	2	0.4
Bloomers—Knitted ..	1.5	4	6.0	C.F.	..
Woven ..	0.3	4	1.2	2	0.6
Hosiery ..	4.0	2.4	9.6	C.F.	..
Nightdresses—Knitted ..	0.3	12	3.6	C.F.	..
Woven ..	0.2	12	2.4	12	2.4
Pyjamas—Knitted ..	0.2	14	2.8	C.F.	..
Woven ..	0.15	14	2.1	14	2.1
Corsets ..	0.9	4	3.6	4	3.6
Brassieres ..	1.0	2	2.0	2	2.0
Dressing Gowns—Wool ..	0.05	15	0.8	9	0.5
Other ..	0.05	15	0.7	15	0.9
Swim Suits ..	0.1	5	0.5	C.F.	..
Shoes ..	1.5	8	12.0	C.F.	..
Slippers ..	1.0	3	3.0	C.F.	..
Balance available for Household Drapery and minor articles of clothing and for slightly heavier purchases from November, 1945a	..	..	3.1	..	5.7
Total Coupon Expenditure for twelve months ..	..	..	112.0	..	51.0 (c)

(a) Scale "B" allows for a slight increase in the replacement rate for those articles remaining in the scale from 15th November, 1945. (b) C.F. = Coupon-free. (c) Equivalent to 56 coupons for 13½ months (15th November, 1945 to 31st December, 1946).

The main piece goods ratings prior to June, 1945 and since November, 1945 are as follows; ratings for household drapery approximate the rating for the piece goods content of such articles.

MAIN PIECE GOODS RATIONING SCALES.

Width of Cloth.	Rating per yard prior to June, 1945. (All types).	Rating per yard from 15th November, 1945.	
		Other than Wool.	Wool.
Over 3 inches and under 18 inches ..	1½	1½	¾
Over 18 inches and under 32 inches ..	2½	2½	1
Over 32 inches and under 40 inches ..	3	2½	1½
Over 40 inches and under 50 inches ..	4	3½	1½
Over 50 inches and under 60 inches ..	5	4½	2
60 inches and over ..	6	5	2½

(vi) *Special Clothing Coupon Issues.* In addition to the general civilian ration, special clothing coupon issues are made to various groups, the principal supplementary issues being to service personnel, expectant mothers, outsize children, employees in industries which are particularly severe on clothing, discharged service personnel, and for household linen requirements by persons setting up home, boarding establishments, etc.

(vii) *Period of Currency of Coupons.* In the first two years of clothing rationing, coupons expired on the date of the next annual issue of clothing coupons. This was found, however, to precipitate a mild buying rush at the close of the ration year. Consequently, the currency of the second half (B) of the 1944-45 clothing coupon issue and of special coupons was extended from June, 1945 (the date of the next issue) to November, 1945.

(viii) *Coupon Trade Control.* Coupons collected from customers are used by retailers to cover replenishment of stocks from their suppliers. Transfer of coupons is simplified by the issue through trading banks of clothing coupon vouchers in denominations of 100, 500, 1,000 and 5,000 coupons in exchange for coupons surrendered by retailers to the banks. Coupons and vouchers pass back through the trade until they reach a registered trader. Registered traders include wholesalers and importers of piece goods and makers-up of clothing, footwear, etc. These registered traders furnish monthly returns setting out quantities of goods sold together with the coupons collected; in addition details as to piece goods imported are shown.

To simplify trade operations and to overcome the difficulty of the difference between coupon ratings of made-up garments and of their piece goods content, registered makers-up are allowed to purchase their piece goods requirements by quotation of their registration number instead of transferring coupons. They collect and surrender coupons, however, with their returns in respect of the made-up garments sold.

(ix) *Statistics of Stock Position.* The summarizing of registered traders' returns furnishes information as to total imports of piece goods and as to total made-up garments, piece goods, etc., made available for consumption. Periodical censuses of stocks are also obtained from registered traders. This summarized information together with the estimated forward supply position furnishes a valuable guide as to whether rationing should be tightened or eased on particular lines.

(x) *Exports.* The export of rationed goods is controlled by arrangement with the Department of Trade and Customs and other Departments. Programmes are prepared of minimum requirements by Pacific Islands dependent upon Australia for supplies and also in respect of export by Red Cross and similar organizations, and exports in these directions are normally limited to such programmes. Other applications for export are dealt with in the light of the supply position of the particular goods and the needs of the country or individual concerned.

3. *Food.*—(i) *Dates of Introduction and of Amendments.* For the reasons indicated in para. 1 (i) above, rationing of certain foodstuffs was introduced from the following dates. Dates of the main variations in the ration are also shown.

Tea rationing by coupon introduced ($\frac{1}{2}$ pound per 5 weeks)	6th July, 1942
(Tea Rationing based on consumer registration with supplier, however, operated from 1st April, 1942.)	
Sugar rationing introduced (1 lb. per week)	31st August, 1942
Tea Ration increased to $\frac{1}{2}$ lb. per 4 weeks	19th October, 1942
Butter rationing introduced ($\frac{1}{2}$ lb. per week)	7th June, 1943
Meat rationing introduced (average of $2\frac{1}{2}$ lb. per week) ..	17th January, 1944
Butter ration reduced to 6 oz. per week	5th June, 1944
Meat ration reduction of approximately $8\frac{3}{4}$ per cent. ..	26th February, 1945
Meat ration further reduced by $12\frac{1}{2}$ per cent.	7th May, 1945
Egg Priority Scheme for Vulnerable Groups operated ..	26th February, 1945 to 31st July, 1945

(ii) *Coupon Rationing.* After examination of the systems of rationing operating in other countries, it was considered that coupon rationing was preferable to a system of consumer registration, since it allows consumers to purchase from any retailer and also provides a comparatively simple control of traders' replenishment of stocks by means of the passage of coupons to their suppliers. Food coupons are provided in the general Food Ration Book issued each year

(iii) *Differential Rationing for Children.* In 1944 and 1945 different coloured ration books were issued for children 5-9 years and under 5 years to allow for differential rationing, e.g., children under 9 receive no tea ration and only half the adult meat ration, while children under 5 participated in the Egg Priority Scheme.

(iv) *Special Food Coupons.* These coupons are issued in certain cases, i.e., to servicemen on leave, invalids, etc. Residents in specified remote areas are allowed 50 per cent. more than the normal ration of tea and sugar, and tea and sugar coupons surrendered in those areas carry an increased value.

The main issues of special food coupons are to expectant mothers who receive extra butter to maintain their ration at 8 oz. per week, and to invalids suffering from certain diseases who receive extra butter and meat.

No special food ration issue has been made to workers in heavy industry in view of the opinion of the Commonwealth Nutrition Committee that the normal ration is adequate for nutrition purposes for workers in general. Workers in isolated areas where alternative foods are not readily available, however, are granted a half meat ration extra.

Extra sugar for jam making is made available from time to time by allocation of additional coupons from the general ration book.

(v) *Café Meals Not Rationed.* While restrictions have been placed on the overall quotas of rationed food supplies made available to cafés, etc., it has not been considered necessary to evolve a system of coupon surrender for café meals. In the case of residential establishments, however, guests remaining over six nights are required to surrender food coupons to the proprietor. Requirements for the supply of meals to casual guests are covered by the issue of food permits.

(vi) *Food Permits.* Food requirements for catering and industrial purposes are controlled by the issue of food coupon permits which are assessed on a scale providing for a reduction below pre-rationing consumption.

(vii) *Ration Reductions.* In consequence of drought conditions and the necessity to maintain all available supplies to the United Kingdom, it was necessary to reduce the butter ration to 6 oz. per week in June, 1944, and the meat ration by $8\frac{3}{4}$ per cent. in February, 1945, and by a further $12\frac{1}{2}$ per cent. in May, 1945. Reductions in quotas for catering and industrial purposes were similarly made on these and other occasions. The reduction in the butter ration was effected by making three coupons each of $\frac{1}{2}$ lb. available every four weeks and the $12\frac{1}{2}$ per cent. cut in the meat ration by making only seven coupons instead of eight available every four weeks.

(viii) *Meat Coupon Scale.* The various classes of meat and cuts are divided into six groups, the ration for each group varying according to the cut and bone and fat content. Under the January, 1944, scale the quantity of rationed meat per adult averaged $2\frac{1}{4}$ lb. per week, children under 9 years receiving half this ration. The present reduced scale for adults averages 1.84 lb. per week.

(ix) *Unrationed Goods.* Sausages, edible offals, canned meats, poultry, rabbits, fish, bacon and ham are not rationed.

(x) *Unrationed Areas.* Meat rationing does not operate in outlying areas and meat coupons are not issued to residents in such areas. The greater part of the area of Queensland, South Australia and Western Australia, and a small part of New South Wales is thus exempted. Approximately 137,000 persons only are resident in such areas.

(xi) *Trade Coupon Control.* Replenishment of stocks by retailers is effected by the passing of coupons to their suppliers. Wholesalers of rationed foodstuffs (and also retail butchers who slaughter meat) are registered with the Commission and furnish periodical returns of their deliveries of coupon goods surrendering therewith the coupon values collected. In the case of meat a special Wholesale Meat Scale operates. To facilitate coupon transactions butchers may convert coupons received by them into vouchers of varying denominations (100, 500, 1,000 and 5,000 coupons), 3 per cent. discount being allowed to cover shop shrinkage and spoilage.

(xii) *Production.* The various Departments responsible for control of production, etc., have been indicated in para. 1 (iv) above. The Rationing Commission is responsible for the equitable distribution of available supplies.

(xiii) *Egg Priority.* To ensure that vulnerable groups, e.g., expectant and nursing mothers, young children and invalids, receive adequate supplies of eggs, a system of Egg Priority supplies operated during the months February to July, 1945. Registration with a particular supplier was effected by lodgment of a registration slip from the Pre-Natal Ration Book and from those of children up to 5 years and of special registration

slips issued on application to invalids of certain classes. Retailers issued Score Cards to their registered customers on which each week's purchases were recorded. Supplies to meet at least priority requirements were arranged by State Egg Controllers.

(xiv) *Other Foodstuffs.* A measure of indirect consumer rationing operated in some districts in respect of other foodstuffs, e.g., milk, etc. Such systems were not, however, subject to coupon control and were not operated by the Rationing Commission.

(xv) *Savings.* In the following table the reduced civilian consumption resulting from the rationing of the commodities indicated is illustrated by comparison of consumption figures for pre-rationing and rationing periods.

ANNUAL CIVILIAN CONSUMPTION.(a)

Period.	Tea.	Refined Sugar.	Butter.	Meat.(b)
	Rationed from July, 1942.	Rationed from August, 1942.	Rationed from June, 1943, and reduced June, 1944.	Rationed from January, 1944.
	million. lb.	'000 tons.	'000 tons.	'000 tons.
Average 3 years ended 1938-39	47.3	344	101.0	760
1943	33.7*	311	96.5	671
1944	39.2	305	80.7	624
1945	43.6	316	78.5	589

(a) Includes catering permits but only the estimated civilian proportion of industrial permits.
(b) Includes bacon and ham, canned meat and offal.

4. *Control of New Businesses.*—Restrictions on new businesses dealing in rationed goods have been necessary to avoid uneconomic use of man-power, etc., and to guard against increase in coupon-free consumption of rationed goods.

With the easing of the man-power position, restrictions on the opening of new businesses involving merely the sale of goods against coupons have been largely relaxed.

In the case of businesses involving coupon-free consumption or use of rationed goods, e.g., cafés, etc., it is necessary to continue restrictions. Special consideration is given to cases of ex-service personnel desiring to rehabilitate themselves in their normal class of business.

5. *General Enforcement of Rationing.*—Rationing has had the general support of the public and traders, the latter co-operating well in the operation of rationing controls. Prosecutions have been made in cases of flagrant breaches of rationing regulations, but generally rationing machinery has functioned effectively and smoothly.

§ 10. Valuation of Australian Production.

1. *Net Value of Production.*—(i) *Australia.* The value of production for Australia is computed in accordance with the decisions reached at the Conferences of Australian Statisticians and principally by the Conference held in 1935. The figures published below have been compiled by the State Statisticians from the best data available. The adoption of substantially uniform methods of valuing production and of estimating elements of costs of production and marketing render the results comparable as between States.

Attention is directed to the fact that the value shown in the table refers only to recorded production and excludes the building and construction industry, those industrial establishments not classified as factories, and agricultural and farmyard produce obtained from areas of less than one acre.

The following is a brief explanation of the terms used in the table :—

(a) "Gross value" is the value placed on recorded production at the wholesale price realized in the principal markets. (In cases where primary products are consumed at the place of production or where they become raw material for a secondary industry, these points of consumption are presumed to be the principal markets.)

- (b) "Local value" is the gross production valued at the place of production and is ascertained by deducting marketing costs from the gross value. (Marketing costs include freight, cost of containers, commission and other charges incidental thereto.)
- (c) "Net value" represents the net return to the producer after deducting from the gross value costs of marketing and of materials used in the process of production. Materials used in the process of production include seed, power, power kerosene, petrol and other oils, fodder consumed by farm stock, manures, dips, sprays and other costs. No deduction has been made for depreciation and maintenance costs. This matter is more fully dealt with in *Production Bulletin* No. 39, Part II, issued by this Bureau.

It should be noted that costs of maintenance of farm buildings and fences have not been deducted from the value of production of rural industries, as particulars are not available for all States. In addition there is an overstatement in the net value of production for New South Wales by the inclusion of power costs in rural industries. These costs, which amounted to £1,892,000 in 1940-41, have not been ascertained in later years. The value shown for Mines and Quarries in Tasmania is understated owing to the omission of Quarries. This understatement, however, is more or less offset by the inclusion of production costs in Mining. As explained in the note (b) below, production costs are not available for all States in respect of Fisheries, and Local Values have been used for this industry with consequent overstatement.

Tables showing the total and *per capita* value of production are published, by States, for each of the ten years ended 1943-44. Except for trapping and mines and quarries, the tables on each industry will be found in the chapter dealing with that industry.

**GROSS, LOCAL AND NET VALUE OF RECORDED PRODUCTION: AUSTRALIA,
1943-44.**

Industry.	Gross Production valued at Principal Markets.	Local Value— Gross Production valued at place of Production.	Net Value of Production (without deduction of depreciation or maintenance).
	£	£	£
Agriculture	113,485,492	98,977,201	78,436,650
Pastoral	124,381,762	113,524,156	108,405,922
Dairying	57,567,185	54,539,176	44,822,715
Poultry	19,902,982	17,916,586	12,884,495
Bee-farming	436,038	393,441	393,441
Total Rural (a) ..	315,773,459	285,350,560	244,943,223
Trapping	7,095,332	6,684,136	6,684,136
Forestry	12,830,699	11,567,263	11,224,295
Fisheries	2,313,519	1,967,541	1,967,541
Mines and Quarries ..	33,745,964	33,323,723	27,458,764
Total Non-rural ..	55,985,514	53,542,663	47,334,736
Total All Primary ..	371,758,973	338,893,223	292,277,959
Factories	(c) 366,235,949	(c) 366,235,949	366,235,949
Total All Industries ..	737,994,922	705,129,172	658,513,908

(a) The term "Rural" is used to cover those industries ordinarily considered to be farm industries.
 (b) Local value. Production costs not available for all States. (c) Net value.

(ii) *States.* The net value of production in each State is shown hereunder:—

NET (a) VALUE OF RECORDED PRODUCTION IN STATES, 1943-44.

Industry.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
Agriculture ..	25,407	16,063	16,491	10,738	4,911	4,827	78,437
Pastoral ..	42,580	26,131	21,981	7,789	7,470	2,455	108,406
Dairying ..	13,483	13,821	11,733	3,495	1,607	684	44,823
Poultry ..	4,590	5,152	787	1,131	697	527	12,884
Bee-farming ..	196	73	29	73	19	3	393
Total Rural ..	86,256	61,240	51,021	23,226	14,704	8,496	244,943
Trapping ..	3,026	2,784	62	211	103	498	6,684
Forestry ..	3,285	1,952	2,822	1,029	1,372	764	11,224
Fisheries (b) ..	728	346	272	241	160	221	1,968
Mines and Quarries	13,005	1,544	2,804	2,975	4,711	2,420	27,459
Total Non-rural	20,044	6,626	5,960	4,456	6,346	3,903	47,335
Total All Primary	106,300	67,866	56,981	27,682	21,050	12,399	292,278
Factories ..	162,726	123,331	30,211	28,411	12,512	9,045	366,236
Total All Industries ..	269,026	191,197	87,192	56,093	33,562	21,444	658,514

(a) See letterpress on page 1091.

(b) Local value.

NET (a) VALUE OF RECORDED PRODUCTION PER HEAD OF MEAN POPULATION, 1943-44.

Industry.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Agriculture ..	8 18 0	8 1 6	15 11 9	17 7 2	10 3 7	19 15 6	10 15 11
Pastoral ..	14 18 5	13 2 9	20 15 6	12 11 10	15 9 8	10 1 2	14 18 4
Dairying ..	4 14 5	6 19 0	11 1 9	5 13 0	3 6 7	2 16 1	6 3 4
Poultry ..	1 12 2	2 11 10	0 14 10	1 16 7	1 8 11	2 3 2	1 15 6
Bee-farming ..	0 1 4	0 0 9	0 0 7	0 2 4	0 0 10	0 0 3	0 1 1
Total Rural ..	30 4 4	30 15 10	48 4 5	37 10 11	30 9 7	34 16 2	33 14 2
Trapping ..	1 1 2	1 8 0	0 1 2	0 6 10	0 4 3	2 0 9	0 18 5
Forestry ..	1 3 1	0 19 7	2 13 4	1 13 3	2 16 11	3 2 7	1 10 10
Fisheries (b) ..	0 5 1	0 3 6	0 5 2	0 7 9	0 6 8	0 18 2	0 5 5
Mines and Quarries	4 11 1	0 15 6	2 13 0	4 16 2	9 15 3	9 18 4	3 15 7
Total Non-rural	7 0 5	3 6 7	5 12 8	7 4 0	13 3 1	15 19 10	6 10 3
Total All Primary	37 4 9	34 2 5	53 17 1	44 14 11	43 12 8	50 16 0	40 4 5
Factories ..	57 0 0	62 0 2	28 11 0	45 18 7	25 18 8	37 1 3	50 8 0
Total All Industries ..	94 4 9	96 2 7	82 8 1	90 13 6	69 11 4	87 17 3	90 12 5

(a) See letterpress on page 1091.

(b) Local value.

2. **Productive Activity.**—In the absence of a satisfactory measure of the total *quantity* of recorded production, the retail price index-numbers have been applied to the value of production, in the same manner as they have been applied to nominal wages, to measure their relative purchasing power. The results may be taken to indicate the purchasing power in retail prices of the things produced, and for convenience will hereafter be called *real* production. Owing to the discontinuance in 1938 of the "A" series index-number it is not possible to continue the measurement on the basis of this series.

Two tables are given:—The first (I.) shows *real* production *per head of population*, but in any deductions therefrom the following considerations must be taken into account. The production considered is material production only, and takes no account of services. As civilization advances, material production becomes less important relatively to services, and a smaller proportion of the population is engaged in such production. For example, the use of the motor car, the cinema and wireless is comparatively recent, and in connexion therewith a much larger number of people is employed in services than in material production. It follows, therefore, that material production per head of population will not measure accurately the progress of productive efficiency, but will tend to give too low a value. Unemployment, of course, will also depress it.

A better measure is afforded by *real* production *per person engaged* in material production. The second table (II.) attempts to give this. The result affords a better measure of productive efficiency, but does not take into account the effect of unemployment, though the index may be somewhat depressed by short time and rationing.

The two tables tell different stories. Before unemployment became severe in 1930 *real* production per head of population (as shown in the last column of the first table) had remained substantially steady with minor fluctuations since 1906. Whatever gain had been made in productive efficiency had been largely counterbalanced by the gradual change-over from production of goods to production of services. Coincident with the heavy increase in unemployment between the years 1930 and 1933, the maximum being reached in 1932, the index-number fell sharply from its normal level of about 100 to 78 in 1930-31. This would imply a fall in average *real* income of nearly one-fourth from the normal level, taking unemployment into account. Apart from a slight recession in 1934-35, due to a drop in wool values the index-number rose continuously from 1931-32 onwards; the pre-depression level was reached in 1935-36 and the peak of 1924-25 was exceeded in 1937-38. This upward movement was interrupted in 1938-39 and 1940-41 but recovered to a new high level in 1941-42 and continued in 1942-43 and 1943-44. During the latter year, the rise in prices in all branches of primary production except gold coincided with a greater quantity output in all branches of production except mining, and with increased activity in manufacturing. As the retail price index showed little change compared with the previous year the *real* production per head of population rose by 1.3 per cent. to a peak higher than any previously attained.

The index-number of *real* production per person engaged, as given in the last column of the second table (II.), shows, on the other hand, an appreciable upward tendency. It rose steeply during the 1914-19 War as might have been expected, fell somewhat after the war and recovered again. In 1929-30 the fall was substantial, due partly to the lag in the fall of retail prices. The index-number increased during the next four years to 126 only to fall again in 1934-35 with the fall in wool prices during that year. During the following four pre-war years a fall was recorded for one year only (1938-39). During the war-years up to and including 1943-44 increases were recorded except in 1940-41. The index-number of 147 for 1943-44 represents a record high level, and an increase of over 18 per cent. compared with 1938-39. This figure for *real* production per person engaged implies a high *real wage* for those in *employment* and is consistent with available information concerning rates of *effective* or *real* wages, which have in recent years surpassed the high level reached in the years 1927-1929.

The data for the second table are not complete. The numbers engaged in timber-getting are not accurately known, so that the value of production on this account, and

the corresponding persons engaged, are both left out of account. Further, the information concerning women engaged in primary production is unsatisfactory, so that males alone are counted in primary industries. In manufacturing, the numbers are converted into equivalent male workers on the basis of relative wages for male and female workers. The column headed "number engaged" is, therefore, rather an index than the absolute number of individuals occupied in material production, but, as an index, it should be accurate enough to give a satisfactory measure of production per person engaged.

I—PRODUCTION PER HEAD OF POPULATION : AUSTRALIA.

Year.	Gross Value of Material Production.			Retail Price Index-numbers, 1911 = 1,000.		Real Production per head of population (1911 = 100) measured in purchasing power over regimen of—	
	Total.	Per head of population.		"A" Series.	"C" Series.	"A" Series.	"C" Series.
		Actual.	Index-number, 1911 = 100.				
	£'000.	£					
1906 ..	147,043	35.9	87	902	..	97	..
1911 ..	188,359	41.2	100	1,000	1,000	100	100
1913 ..	220,884	45.1	110	1,104	..	99	..
1914 ..	213,552	43.0	104	1,140	1,140	92	92
1916 ..	261,996	53.3	129	1,324	1,319	98	98
1917 ..	279,418	56.1	136	1,318	1,406	103	97
1918 ..	291,875	57.5	140	1,362	1,501	102	93
1919-20 ..	343,697	64.9	158	1,624	1,695	97	93
1920-21 ..	390,644	72.2	175	1,821	1,935	96	91
1921-22 ..	344,426	62.5	152	1,600	1,680	95	90
1922-23 ..	379,445	67.4	163	1,642	1,619	100	101
1923-24 ..	400,276	69.6	169	1,714	1,664	99	102
1924-25 ..	454,580	77.3	188	1,690	1,637	111	115
1925-26 ..	431,670	72.0	175	1,766	1,673	99	104
1926-27 ..	447,354	73.1	178	1,763	1,663	101	107
1927-28 ..	452,901	72.5	176	1,776	1,676	99	105
1928-29 ..	447,805	70.5	171	1,785	1,693	96	101
1929-30 ..	389,537	60.6	147	1,783	1,688	83	87
1930-31 ..	319,706	49.2	120	1,574	1,528	76	78
1931-32 ..	305,018	46.5	113	1,432	1,406	79	80
1932-33 ..	318,224	48.2	117	1,358	1,344	86	87
1933-34 ..	357,218	53.7	130	1,365	1,344	96	97
1934-35 ..	356,349	53.2	129	1,399	1,366	92	95
1935-36 ..	404,770	60.0	146	1,437	1,392	101	105
1936-37 ..	456,745	67.1	163	1,489	1,431	110	114
1937-38 ..	486,914	70.9	172	1,530	1,467	113	117
1938-39 ..	464,993	67.1	163	(a)	1,512	(a)	108
1939-40 ..	527,500	75.4	183	(a)	1,545	(a)	119
1940-41 ..	549,927	78.4	190	(a)	1,634	(a)	117
1941-42 ..	645,863	90.1	219	(a)	1,730	(a)	126
1942-43 ..	717,385	99.7	242	(a)	1,864	(a)	130
1943-44 ..	735,375	101.2	246	(a)	1,838	(a)	132

(a) Not available.

II—PRODUCTION PER PERSON ENGAGED : AUSTRALIA.

Year.	Number engaged in Material Production.(a)	Value of Material Production per person engaged in production.(a)		“ Real ” Production per person engaged (1911 = 100) measured in retail purchasing power over regimen of—	
		Actual.	Index-number, 1911 = 100.	“ A ” Series.	“ C ” Series.
	’000	£			
1906 ..	659	223	87	96	..
1911 ..	728	257	100	100	100
1913 ..	756	290	113	102	..
1914 ..	733	289	113	99	99
1916 ..	685	381	148	112	112
1917 ..	683	408	159	120	113
1918 ..	685	424	165	121	110
1919-20 ..	743	460	179	110	106
1920-21 ..	760	510	199	109	103
1921-22 ..	775	441	172	107	102
1922-23 ..	793	475	185	113	114
1923-24 ..	810	491	191	111	115
1924-25 ..	826	547	213	126	130
1925-26 ..	831	515	201	114	120
1926-27 ..	841	527	205	116	123
1927-28 ..	838	536	209	118	125
1928-29 ..	830	536	209	117	123
1929-30 ..	803	482	187	105	110
1930-31 ..	728	431	168	108	112
1931-32 ..	741	411	160	112	114
1932-33 ..	781	407	158	117	118
1933-34 ..	815	437	170	125	126
1934-35 ..	862	412	160	115	117
1935-36 ..	901	448	174	121	125
1936-37 ..	930	491	191	128	134
1937-38 ..	961	504	196	128	134
1938-39 ..	962	481	187	(b)	124
1939-40 ..	979	536	209	(b)	135
1940-41 ..	1,016	538	210	(b)	128
1941-42 ..	1,029	624	243	(b)	140
1942-43 ..	1,023*	697	271	(b)	146
1943-44 ..	1,042	706	275	(b)	147

(a) See explanatory remarks above tables.

(b) Not available.

§ 11. Indexes of Production.

In the tables below, indexes of price and quantity production are given for the following industrial groups, namely:—Agriculture, Pastoral, Farmyard and Dairying, Gold and Other Minerals, and for all groups combined. The method used in calculating these indexes is the fixed base weighted aggregative method. Prices for any year are

obtained by dividing value of production by quantity produced in that year, and the price indexes are computed by using as fixed quantity-multipliers, for the commodities involved, the average quantities produced over the period 1923-24 to 1927-28. For the quantity indexes the fixed multipliers are weighted average prices over the same period, which are obtained by dividing the total value of any commodity for the period by the total quantity produced. Exactly the same method is used for the combined group indexes (i.e., for All Farming and Total) as for the indexes for individual groups.

PRIMARY PRODUCTION : INDEX-NUMBERS OF PRICES.

(Base : Average 1923-24 to 1927-28 = 1,000).

Year.	Agricultural.	Pastoral.	Farmyard and Dairying.	All Farming.	Minerals.		Total Primary
					Gold.	Other, excluding Gold.	
1911 ..	695	455	597	560	973	482	558
1912 ..	652	537	664	597	973	525	595
1913 ..	641	524	633	581	973	523	580
1914 ..	1,083	591	680	774	973	514	754
1915 ..	753	784	836	782	973	578	767
1916 ..	728	879	881	827	973	674	816
1917 ..	848	960	860	906	973	846	901
1918 ..	1,068	963	950	976	973	832	964
1919-20 ..	1,489	1,010	1,144	1,196	1,170	861	1,167
1920-21 ..	1,285	949	1,452	1,145	1,289	919	1,127
1921-22 ..	981	666	1,008	829	1,215	912	840
1922-23 ..	1,025	880	1,070	960	1,075	905	957
1923-24 ..	902	1,117	1,023	1,028	1,014	931	1,020
1924-25 ..	1,050	1,101	901	1,052	1,066	1,020	1,049
1925-26 ..	1,095	902	1,026	988	973	1,041	992
1926-27 ..	976	866	1,024	929	973	1,044	939
1927-28 ..	977	1,015	1,025	1,004	973	964	1,000
1928-29 ..	884	893	1,043	914	973	933	916
1929-30 ..	829	724	990	803	973	902	813
1930-31 ..	574	571	792	608	973	852	632
1931-32 ..	634	491	712	575	1,372	692	593
1932-33 ..	600	480	636	546	1,672	640	566
1933-34 ..	597	715	625	660	1,768	638	670
1934-35 ..	662	532	674	599	1,948	643	617
1935-36 ..	710	685	742	702	2,006	686	715
1936-37 ..	840	765	794	795	1,984	742	803
1937-38 ..	751	705	865	747	1,990	820	766
1938-39 ..	677	608	905	680	2,019	705	696
1939-40 ..	675	707	911	729	2,228	736	745
1940-41 ..	759	752	876	775	2,442	813	795
1941-42 ..	762	802	919	807	2,448	889	831
1942-43 ..	875	882	1,001	899	2,395	944	918
1943-44 ..	952	919	1,037	949	2,395	981	967

PRIMARY PRODUCTION : INDEX-NUMBERS OF QUANTITY PRODUCTION.

(Base : Average 1923-24 to 1927-28 = 1,000).

Year.	Agricultural.	Pastoral.	Farmyard and Dairying.	All Farming.	Minerals.		Total Primary
					Gold.	Other, excluding Gold.	
1911 ..	611	938	742	794	4,172	1,176	862
1912 ..	775	859	721	808	3,906	1,265	879
1913 ..	807	970	713	878	3,707	1,332	940
1914 ..	359	948	720	709	3,451	1,172	777
1915 ..	1,199	768	570	884	3,270	1,075	925
1916 ..	971	742	701	814	2,798	962	847
1917 ..	805	750	814	779	2,446	936	810
1918 ..	635	849	796	767	2,138	1,000	801
1919-20 ..	527	938	737	765	1,794	717	771
1920-21 ..	1,046	763	809	868	1,585	785	868
1921-22 ..	944	877	955	913	1,273	783	906
1922-23 ..	896	934	872	911	1,269	873	912
1923-24 ..	971	837	886	891	1,196	974	901
1924-25 ..	1,151	977	1,091	1,055	1,135	1,003	1,052
1925-26 ..	880	1,033	1,009	976	939	1,008	979
1926-27 ..	1,090	1,093	971	1,072	876	991	1,063
1927-28 ..	908	1,060	1,043	1,005	854	1,025	1,005
1928-29 ..	1,093	1,133	1,068	1,109	769	899	1,087
1929-30 ..	952	1,067	1,071	1,028	717	852	1,010
1930-31 ..	1,346	1,035	1,175	1,164	784	810	1,130
1931-32 ..	1,211	1,129	1,265	1,179	1,000	665	1,134
1932-33 ..	1,334	1,212	1,350	1,276	1,199	774	1,233
1933-34 ..	1,228	1,160	1,423	1,226	1,394	828	1,194
1934-35 ..	1,066	1,200	1,485	1,200	1,489	883	1,176
1935-36 ..	1,096	1,166	1,415	1,182	1,529	984	1,169
1936-37 ..	1,158	1,206	1,359	1,214	1,981	1,050	1,209
1937-38 ..	1,313	1,260	1,432	1,306	2,320	1,130	1,302
1938-39 ..	1,154	1,211	1,497	1,237	2,674	1,173	1,247
1939-40 ..	1,495	1,322	1,554	1,419	2,764	1,283	1,421
1940-41 ..	824	1,336	1,516	1,189	2,761	1,256	1,212
1941-42 ..	1,276	1,379	1,540	1,370	2,514	1,312	1,377
1942-43 ..	1,197	1,379	1,587	1,350	1,938	1,290	1,351
1943-44 ..	1,005	1,393	1,502	1,277	1,262	1,193	1,270

§ 12. Consumption of Commodities.

1. *Australia.*—The movement in the consumption of commodities is of special interest, indicating, as it does, the presence or absence of a number of important factors in the communal life of Australia. These factors include such items as changes in diet, and variations in supply and demand, in purchasing power and in population. It is not possible to measure the influence of each of these changes, but their net effect on consumption is revealed in the figures given.

Increases in the actual quantities consumed, while indicating a greater consumptive capacity for Australia as a whole, do not indicate the trends in consumption. These are recorded in the *per capita* figures. The most pronounced changes over a series of years have taken place in motor spirit, barley, butter, meat, biscuits, flour, maize, potatoes, tea, beer, and spirits. With the development of motor transport the consumption of motor spirit has risen from 2 to almost 50 gallons per head of population between 1913 and 1941. Butter and barley have been consumed in larger quantities during each of the periods shown in the table. The consumption of meat has increased since the war years of 1914-19.

Commodities showing trends in the opposite direction were : biscuits, flour, maize, potatoes, tea, beer and spirits. It should be remembered, however, that the figures for the five years ended 1935-36 were seriously affected by the economic depression and the consequent rise in unemployment, while the figures for the five years ended 1940-41 were affected by the change due to the war.

The following tables furnish a comparison over a long series of years of the average annual total and *per capita* quantities available for consumption in Australia. The data have been compiled by adding to production the excess of imports or subtracting the excess of exports as the case may be. Allowance should be made for stocks at the commencement and at the end of each period, but this was possible only in respect of wheat and flour. In consequence, the figures given for the remaining commodities are somewhat incomplete, but any discrepancy occasioned by this omission is minimized by ranging the consumption over periods of five to seven years.

A few brief notes on some features of the more important commodities are given below :—

Cereals.—The quantities shown for cereals represent the amounts available for human consumption in cereal or in some other consumable form. In addition, they include those quantities consumed by live stock, of which separate details are not available. These quantities, together with the amount required for seed purposes, give the total requirements of Australia.

Root Crops.—In arriving at the total quantity available for consumption the output of holdings of less than one acre has been excluded.

Dairy Produce.—The quantities of fresh milk consumed by the people of Australia cannot be determined accurately, and the figures are no more than estimates obtained from the best available sources. The quantities of butter and cheese consumed include those produced on farms.

Meats.—The accuracy of the figures of meat consumption depends upon the reliability of the average weights applied to the dressed carcasses. These are most difficult to obtain for the whole of Australia and the figures have been compiled from the most reliable estimates available.

Drink and Tobacco.—The quantities used in these compilations were those on which excise was paid and those cleared from bond.

Sugar.—In determining the consumption of sugar, allowance has been made for the estimated sugar contents of goods exported; these include canned fruit, condensed milk, jam, etc. The quantities shown, therefore, represent those actually available for consumption in Australia.

Flour.—The quantities of flour available for consumption include the amounts consumed in bread, cakes, pastry and biscuits; the quantities used by factories in other manufacturing processes are also included.

ESTIMATED QUANTITY OF COMMODITIES ENTERING CONSUMPTION ANNUALLY, AUSTRALIA.

Commodity.	Unit of Quantity.	Seven years ended 1920-21.	Five years ended—			
			1925-26.	1930-31.	1935-36.	1940-41.
Cereals—						
Barley	'000 bush.	3,132	3,364	4,343	4,351	6,344
" seed requirements	" "	336	410	499	644	1,093
Maize	" "	8,324	9,741	8,645	6,961	7,235
" seed requirements	" "	89	90	89	86	100
Oats	" "	9,271	10,772	9,526	10,927	10,194
" seed requirements	" "	3,311	4,217	4,471	5,536	5,984
Rice clean	'000 cwt.	245	343	335	298	279
" (paddy), seed requirements	" "			9	1	13
Wheat	'000 bush.	31,903	34,258	39,767	37,222	39,061
" seed requirements	" "	10,387	11,752	16,158	14,210	14,179
Root Crops—						
Onions	Ton	32,058	30,928	42,067	38,729	39,733
Potatoes	" "	283,644	311,866	314,236	292,129	328,125
" seed requirements	" "	45,936	48,645	49,451	48,153	39,898
Other Crops—						
Dried grapes—						
Raisins	" "	7,039	9,282	11,363	12,307	17,687
Currants	" "	4,096	4,195	4,308	4,137	5,159
Sugar, raw	" "	266,242	303,010	345,942	338,471	384,161
" refined	" "	254,261	289,375	330,375	323,240	366,874
Dairy Produce—						
Butter	'000 lb.	126,484	161,750	187,372	203,188	225,386
Cheese	" "	17,855	21,320	25,192	25,375	28,552
Milk	'000 gal.	100,162	128,754	140,645	150,212	164,771
Meats—						
Beef	'000 lb.	558,487	769,638	742,577	746,162	949,201
Mutton	" "	353,727	359,198	389,980	443,342	423,032
Lamb	" "			68,202	92,940	92,577
Pork	" "	20,911	30,006	41,247	54,574	51,548
Bacon and ham	" "	52,483	64,652	75,449	69,885	73,369
Total Meats	" "	985,608	1,223,494	1,317,464	1,406,903	1,589,727
Drink and Tobacco—						
Beer	'000 gal.	63,196	64,823	66,358	54,646	84,003
Spirits (potable)	" "	2,752	2,361	2,168	1,275	1,562
Tobacco	'000 lb.	14,957	18,699	20,230	18,933	25,627
Other Foodstuffs—						
Biscuits	" "	87,311	76,291	69,951	53,882	71,923
Coffee	" "	2,671	3,197	3,301	3,834	5,533
Fish, fresh	" "	(a)	51,104	65,790	67,515	72,995
" preserved in tins	" "	15,695	22,588	23,957	20,176	25,023
Flour, wheaten	Ton	559,442	604,239	641,968	673,800	646,180
Fruit, Canned	'000 lb.	(a)	(a)	(a)	(a)	77,807
Jam	" "	71,451	61,264	76,687	76,405	84,012
Margarine	" "	(a)	(a)	24,255	22,209	35,608
Milk, Condensed and Con- centrated	" "	(a)	26,274	24,763	23,627	25,247
" Powdered	" "	(a)	8,656	9,913	10,376	20,190
Oatmeal	'000 cwt.	(a)	(b) 296	301	270	283
Sago and tapioca	'000 lb.	9,047	9,061	8,070	8,347	8,866
Tea	" "	40,323	44,608	47,593	45,427	48,050
Other Commodities—						
Soap	'000 cwt.	680	781	915	868	954
Kerosene	'000 gal.	20,489	25,873	50,525	41,361	53,758
Motor spirit	" "	20,929	75,357	206,106	225,688	341,708
Cement—portland	Ton	(a)	(b) 520,622	651,618	437,309	836,755

(a) Not available.

(b) Average for four years ended 1925-26.

ESTIMATED QUANTITY OF COMMODITIES ENTERING CONSUMPTION ANNUALLY
PER HEAD OF POPULATION, AUSTRALIA.

Commodity.	Seven years ended 1925-21.	Five Years ended—			
		1925-26.	1930-31.	1935-36.	1940-41.
Cereals—	lb.	lb.	lb.	lb.	lb.
Barley	30.76	29.25	34.28	32.50	45.84
„ seed requirements	3.29	3.56	3.94	5.00	7.89
Maize	91.55	94.84	76.43	58.80	58.55
„ seed requirements	0.98	0.88	0.79	0.56	0.81
Oats	72.83	74.92	60.16	65.60	58.92
„ seed requirements	20.01	29.33	28.23	33.20	34.62
Rice (clean)	5.44	6.68	5.93	5.02	4.52
„ (paddy), seed re- quirements .. ..	..	..	0.17	0.21	0.22
Wheat	375.93	357.00	376.80	335.40	338.40
„ seed requirements	122.39	122.40	153.00	128.40	123.00
Root Crops—					
Onions	14.13	12.04	14.88	13.04	12.86
Potatoes	124.78	121.46	111.13	98.35	106.22
„ seed require- ments	20.25	18.95	17.49	16.21	12.92
Other Crops—					
Dried grapes—Raisins ..	3.09	3.61	4.02	4.14	5.72
„ Currants	1.80	1.64	1.52	1.39	1.67
Sugar, raw	117.13	118.01	122.34	113.96	124.35
„ refined	111.86	112.70	116.84	108.83	118.76
Dairy Produce—					
Butter	24.84	28.12	29.58	30.54	32.57
Cheese	3.51	3.71	3.98	3.81	4.13
	gal.	gal.	gal.	gal.	gal.
Milk (fluid)	19.67	22.39	22.20	22.58	23.81
Meats—	lb.	lb.	lb.	lb.	lb.
Beef	109.68	133.81	117.24	112.15	137.17
Mutton	} 69.47	62.45	{ 61.57	66.64	61.13
Lamb				13.77	13.78
Pork				8.20	7.45
Bacon and ham	10.31	11.24	11.91	10.50	10.60
<i>Total Meats</i>	193.67	212.72	207.99	211.46	230.13
Drink and Tobacco—	gal.	gal.	gal.	gal.	gal.
Beer	12.41	11.27	10.48	8.23	12.14
Spirits (potable)	0.54	0.41	0.34	0.19	0.23
	lb.	lb.	lb.	lb.	lb.
Tobacco	2.94	3.25	3.19	2.84	3.70
Other Foodstuffs—					
Biscuits	17.15	13.26	11.04	8.10	10.39
Coffee	0.52	0.56	0.52	0.58	0.80
Fish, fresh	(a)	8.88	10.39	10.15	10.54
„ preserved in tins ..	3.08	3.93	3.78	3.03	3.62
Flour, wheaten	219.74	210.11	202.70	202.55	186.76
Fruit Canned	(a)	(a)	(a)	(a)	11.24
Jam	14.03	10.66	12.11	11.48	12.14
Margarine	(a)	(a)	3.83	3.34	5.15
Milk, Condensed and Con- centrated	(a)	4.57	3.91	3.55	3.65
„ Powdered	(a)	1.50	1.59	1.56	1.92
Oatmeal	(a)	(b) 4.49	5.32	4.55	4.58
Sago and Tapioca	1.78	1.73	1.27	1.25	1.28
Tea	7.92	7.76	7.51	6.83	6.94
Other Commodities—					
Soap	15.16	15.20	16.18	14.62	15.44
Cement—portland	(a)	(b) 196.61	230.44	147.23	270.86
	gal.	gal.	gal.	gal.	gal.
Kerosene	4.02	4.50	7.98	6.22	7.77
Motor Spirit	4.11	13.10	32.55	33.92	49.38

(a) Not available.

(b) Average for four years ended 1925-26.

2. **International Comparison.**—The difficulties associated with the compilation of statistics of consumption in Australia have already been mentioned, and the absence of corresponding figures for other countries suggests a similar experience abroad. Some details are published in other countries, but these are restricted to a few commodities, and an extensive comparison on an international basis is not possible.

In the absence of complete details of the methods used in their computation, it is not possible to say whether the figures given are comparable in all respects with those shown for Australia. It is known that in some instances the figures relate to a single year, while those for Australia refer to the average over five years. In the following table the figures for Australia are below the normal, as the period taken (five years ended 1935-36) included some years of the economic depression.

The details given in the following table have been taken from official or other authoritative sources and are the best available. They do not afford a comparison of the standards of living in the various countries, but are intended to present a comparison of more than usual interest.

CONSUMPTION PER HEAD OF POPULATION IN VARIOUS COUNTRIES.

Commodity.	Unit of Quantity.	Average annual consumption per head of population.				
		Australia.	New Zealand.	Canada.	United Kingdom.	U.S.A.
Wheat (excluding seed) ..	Bus.	5.6	5.7	5.5	5.8	4.7
Flour, wheaten ..	lb.	203	180	166	200	160
Sugar, refined ..	"	109	115	96	102	105
Milk, whole ..	Gal.	22.5	22.5	37.0	21.0	(a)
Butter ..	lb.	30.5	40.0	31.8	24.8	16.7
Cheese ..	"	3.8	8.0	3.6	8.6	5.4
Eggs ..	Doz.	(a)	20.0	20.8	13.0	(a)
Beef ..	lb.	112	140	62	69	63
Mutton and lamb ..	"	81	88	6	30	7
Pig Meat ..	"	19	21	57	42	55
<i>Total Meats</i> ..	"	212	249	125	141	125
Wine ..	Gal.	0.3	0.2	0.3	0.3	0.4
Beer ..	"	8.2	8.6	6.0	33.1	13.0
Spirits (potable) ..	"	0.2	0.3	0.3	0.2	0.9
Tobacco ..	lb.	2.8	3.5	3.9	3.9	6.6
Tea ..	"	6.8	6.7	3.6	9.2	0.7
Coffee ..	"	0.6	(a)	3.4	0.7	13.3
Raisins and currants ..	"	5.5	8.4	3.8	5.7	2.2
Rice ..	"	5.0	5.3	7.3	5.2	(a)
Onions ..	"	13	12	(a)	(a)	(a)
Potatoes ..	"	98	108	(a)	241	(a)

(a) Not available.

§ 13. Film Censorship.

1. **Legislation.**—The censorship of imported films derives its authority from Section 52 (g) of the Customs Act, which gives power to prohibit the importation of goods. Under this section regulations have been issued prohibiting the importation of films except under certain conditions and with the consent of the Minister. The regulations provide, *inter alia*, that no film shall be registered which in the opinion of the Censor is (a) blasphemous, indecent or obscene; (b) likely to be injurious to morality, or to encourage or incite to crime; (c) likely to be offensive to the people of any friendly nation; (d) likely to be offensive to the people of the British Empire; or (e) depicts any matter the exhibition of which is undesirable in the public interest.

The regulations governing the exportation of Australian-made films are similar, with the addition that no film may be exported which in the opinion of the Censorship is likely to prove detrimental or prejudicial to the Commonwealth of Australia.

The Censorship consists of a Censorship Board of three persons and an Appeal Censor, the head-quarters being in Sydney. There is also a right of appeal to the Minister.

In addition to the censorship of moving pictures, the Censorship may refuse to admit into Australia any advertising matter proposed to be used in connexion with the exhibition of any film. Such control does not, however, extend to locally-produced publicity.

2. **Imports of Films.**—Imported films dealt with by the Censorship for the year 1944 were as follows:—1,553 films of 4,106,560 feet passed without eliminations, 34 films of 173,142 feet passed after eliminations, and 1 film of 8,178 feet rejected in first instance, making a total of 1,588 films of 4,287,880 feet (one copy). The countries of origin were as follows:—United States of America, 879 films of 2,999,039 feet; United Kingdom, 515 films of 1,039,078 feet; and 194 films of 249,763 feet from other countries.

The foregoing figures relate to standard size films (35 millimetres). There were also imported during 1944 891 miniature films (16, 9.5 and 8 millimetres) of 555,052 feet.

3. **Exports of Films.**—The number of films exported for the year 1944 was 613 of 716,154 feet, of which 431 films of 591,353 feet were sent to places in the British Empire including Mandated Territories.

§ 14. Marketing of Australian Commodities.

1. **Introduction.**—Particulars in respect of the various Commonwealth Acts and Regulations together with the operations of the Boards or Councils appointed to assist or control the marketing of Australian commodities are set out below. It should be noted that the particulars refer to the marketing of Australian commodities in the normal times of peace, and that no reference has been made to changes induced since the outbreak of the 1939-45 War. A brief summary of the war-time arrangements for the marketing and sale of Australian commodities is included in § 15 which follows.

2. **Dairy Produce.**—(i) *The Dairy Produce Export Control Act 1924-1938.* Introduced at the request of the dairying industry this Act was passed by the Commonwealth Parliament with the object of organizing the overseas marketing of Australian dairy produce. A Dairy Produce Control Board was appointed and was in existence from 1924 to 1935. It dealt with matters relating to the organization and supervision of overseas marketing of dairy produce. In the course of its functions the Board regulated shipments to ensure regularity of supply in the London market, controlled forward selling, obtained reductions in overseas freights and insurance rates, and participated in an advertising campaign in the United Kingdom.

Prior to the appointment of the Dairy Produce Control Board a voluntary body—the Australian Dairy Council—was established to advise and make recommendations to the Governments on problems connected with the production, manufacture and quality of dairy produce, pasture improvement and diseases of dairy cattle.

Following a recommendation by the Australian Agricultural Council the functions of these bodies were combined by an amending Act of 1935 under the Australian Dairy Produce Board and provision was made for the allocation of money from the Board's funds for research and investigation into pastures, diseases of dairy cattle and the quality of butter.

(ii) *The Dairy Produce Export Charges Act 1924-1937.* This Act provides for the imposition of a levy on all butter and cheese exported from Australia to cover the administrative expenses of the Board and for advertising and other purposes. The rate of the levy is fixed by regulation.

(iii) *The Dairy Produce Act 1933-1935.* In § 1 par. 3 of Chapter XXI. "Farmyard, Dairy and Bee Products" reference is made to the voluntary and compulsory plans introduced for the purpose of stabilizing the prices of dairy produce in Australia.

Under State legislation regulating authorities fixed the proportion of the States' output to be sold within the respective States, and the Dairy Produce Act was passed by the Commonwealth Parliament to protect these "quotas" from the effects of interstate competition. A decision of the Privy Council in 1936, however, held that the Commonwealth had no power under its Constitution to control interstate trade and the Commonwealth legislation is therefore inoperative. The industry is now carrying on its stabilization plan on a purely voluntary basis.

3. *Dried Fruits.*—(i) *The Dried Fruits Export Control Act 1924-1938.* This Act was passed by the Commonwealth Parliament at the request of the dried fruits industry to organize the oversea marketing of Australian dried vine fruits. The Dried Fruits Control Board, consisting of eight members—including five growers' representatives, two members with commercial experience and one Government nominee—was appointed to control the export, and the sale and distribution after export, of Australian sultanas, currants and lexias. In conjunction with its London agency, the Board has improved the marketing of Australian dried fruits overseas, and has increased the demand for the product. Its system of appraisement has resulted in more satisfactory realizations. Its methods of ensuring continuity of supply and regulating shipments and its participation in the advertising campaign of the Australian Overseas Trade Publicity Committee have benefited the industry considerably. No dried fruits may be exported except by means of a licence, which is issued subject to conditions recommended by the Board.

(ii) *Dried Fruits Export Charges Act 1924-1929.* This Act provides for the imposition of a levy on all sultanas, currants and lexias exported from Australia for the purpose of defraying the administrative expenses of the Board and the cost of advertising, etc. The rate of the levy is fixed by regulation. Under an amendment made in 1927 provision was made for the exemption of sultanas, currants and lexias from the levy upon recommendation by the Board.

(iii) *The Dried Fruits Act 1928-1935.* In previous issues of the Official Year Book reference has been made to the Dried Fruits Act and its provisions outlined (see p. 894 of Official Year Book, No. 28). This legislation is in a similar position to that for dairy produce referred to in par. 2 (iii) above.

4. *Canned Fruits.*—(i) *The Canned Fruits Export Control Act 1926-1938.* This legislation was introduced at the request of canners and representative organizations of fruit-growers with the object of organizing the oversea marketing of canned fruit. The original Act referred to canned apricots, peaches and pears only, but canned pineapples and canned fruit salads consisting of not less than 75 per cent. of specified fruits were subsequently brought within the scope of the Board's operations. The personnel of the Australian Canned Fruits Board consists of one representative each from proprietary and privately owned canneries, co-operative canneries, State-controlled canneries, pineapple interests and the Commonwealth Government. No canned fruits to which the Act applies are permitted to be exported except under a licence issued in accordance with conditions recommended by the Board. The system of marketing adopted by the Board, including the fixation of minimum selling prices overseas, the appointment of a London agency and the engaging in oversea trade publicity, has resulted in the satisfactory disposal of the annual exportable surplus of canned fruits. The distribution of canned fruits has been widened and the exporting side of the industry placed on a sounder basis through the Board's operations.

(ii) *The Canned Fruits Export Charges Act 1926-1938.* This Act provides for the imposition of a levy on the export of canned fruits to meet the administrative and other commitments of the Board. The rate of the levy is fixed by regulation from time to time. An amendment in 1929 provided for certain exemptions from payment of the levy when recommended accordingly by the Board.

5. *Wine.*—(i) *The Wine Overseas Marketing Act 1929-1936.* This Act was introduced at the request of the viticultural interests in Australia with the object of placing the overseas marketing of Australia's surplus wine on an orderly basis. The Wine Overseas Marketing Board was appointed to supervise the exports, and the sale and distribution after export, of Australian wine.

The name of the Board was changed to the Australian Wine Board in 1936. No wine may be exported except by means of a licence, which is issued under conditions recommended to the Minister by the Board; these include the withholding of shipments as directed by the Board. The Board has a London agency which advises on marketing conditions. The methods of marketing adopted by the Board have resulted in the widening of the distribution of Australian wines overseas.

(ii) *The Wine Grapes Charges Act 1929-1937*. This Act provides for the imposition of a levy on all grapes used in Australia for the manufacture of wines or spirit used for fortifying wine. The proceeds of the levy are used to defray the administrative and other expenses of the Board, and provision is made for such exemptions from the levy as the Board may recommend.

6. *Meat*.—(i) *The Meat Export Control Act 1935-1946*. This Act was introduced following a decision of a conference of Commonwealth and State Ministers with members of the Commonwealth Meat Advisory Committee, held in October, 1935, to set up a Meat Board with defined statutory powers. The Australian Meat Board, which was appointed under the Act in January, 1936, consists of eighteen members, representative of producers, processors, exporters and the Commonwealth Government. Provision is made for the appointment from within the Board of an Executive Committee and a Beef Committee. Export of meat is controlled by licence. The Board has power to regulate shipments of meat and to arrange contracts in respect of freights and insurances; to promote overseas sales by advertising and to foster research into meat problems; and to supervise the issue of export licences. The Board also has power to appoint a London representative. During the 1939-45 War the control of meat exports was under National Security Regulations which ceased to operate with the expiry of the National Security Act on 31st December, 1946. Control then reverted to the Board.

(ii) *The Meat Export Charges Act 1935*. By means of a levy collected on all meats exported from Australia, funds are provided for the purpose of defraying the expenses and charges incurred by the Australian Meat Board in the course of its business. The customary provision is made for exemption from the levy when recommended by the Board.

7. *Apples and Pears*.—(i) *The Apple and Pear Organization Act 1938*. This Act, which was passed by the Commonwealth Parliament at the request of the Apple and Pear industry, provides for the establishment of an Australian Apple and Pear Board for the purpose of organizing and controlling the export trade in fresh apples and pears.

The Board consists of one member to represent the Commonwealth Government; eleven members to represent the growers of apples and pears on the basis of four from Tasmania, two each from Victoria and Western Australia, and one each from New South Wales, Queensland and South Australia; and four members to represent exporters of apples and pears on the basis of one from each of the States of Victoria, South Australia, Western Australia and Tasmania.

The Board has power to regulate the shipment of apples and pears from Australia by licensing exporters and issuing permits to export. Power is also given to determine export quotas, and to allocate the consignments from each State. The Board may appoint persons to represent it overseas.

(ii) *The Apple and Pear Export Charges Act 1938*. This Act provides for the imposition of a levy on all apples and pears exported from Australia for the purpose of providing the funds necessary to meet the administrative and other expenses of the Board.

(iii) *The Apple and Pear Publicity and Research Act 1938*. Under this Act, the Australian Apple and Pear Board is empowered to expend moneys, specifically collected and appropriated, for the purpose of increasing and extending the consumption of apples and pears throughout Australia by publicity, research or any other means.

The fund for this purpose is to be created from the proceeds of a tax levied on all apples and pears sold for consumption in Australia as fresh fruit. Apples and pears exported or to be exported, or processed or to be processed, are exempt from the tax.

The related taxing measures are:—The Apple and Pear Tax Act 1938 and the Apple and Pear Tax Assessment Act 1938.

8. **Wheat Industry Assistance Act 1938.**—This legislation, which came into operation in December, 1938, supplements legislation of a uniform type passed by all the State Parliaments, and is designed to enable the operation of a home consumption price scheme for the wheat industry on an Australian basis.

The legislation is based on a home consumption price of 5s. 2d. a bushel, free on rail, Williamstown, equivalent to 4s. 8d. at country sidings. When the price of wheat falls below that level the returns of growers will be supplemented by payments from a fund established from the proceeds of a flour tax which varies inversely with the price of wheat. When the export price rises above that level provision is made for a tax on wheat sold, the proceeds of which are to be applied to ensure that the cost of wheat gristed for home consumption shall not exceed 5s. 2d. per bushel.

Out of the general fund a sum not exceeding £500,000 per year will be reserved during the first five years for special purposes including the transfer of producers growing wheat on marginal lands to other areas where they will be able to engage in mixed farming or to enable them to increase the size of their holdings to make wheat-growing worth while.

A Wheat Stabilization Advisory Committee has been established to determine the appropriate times for a variation in the rate of tax which will be fixed on the basis of a rigid formula.

The State legislation undertakes to ensure that prices charged to consumers are reasonable and the Commonwealth legislation contains provision that no State shall be entitled to receive payments where that undertaking is not carried out.

With the acquisition of wheat by the Commonwealth Government after the outbreak of war and the payment direct to them by the Wheat Board, the provision for payment of flour tax to growers was varied by the Wheat Industry (War-time Control) Act, 1939. Flour tax proceeds under this Act are paid into the Commonwealth Bank for repayment of advances made and in this way are incorporated with the receipts of the wheat pools.

9. **Export Guarantee Act.**—For a considerable time this Act has not been invoked directly to provide for assistance in the marketing of primary products. The Dried Fruits Advances Act, disbursements under which were made for the appropriation pursuant to the Export Guarantee Act, has ceased to operate. The Board of Trade, which was formed to advise and recommend on expenditure proposed under the Act, has not functioned for some years. The only recent expenditure under the Act has been in respect of special oversea trade publicity, but since 1st July, 1934, expenditure under that heading has been made the subject of a separate appropriation. The total assistance granted under the Act during its period of operation amounted to £670,574 which included substantial payments on account of both the Dried Fruits Advances Act and oversea trade publicity. Although the Export Guarantee Act has not been repealed, it is not proposed that any further payments shall be made under it.

§ 15. War-time Marketing of Primary Products.

1. **General.**—Prior to the outbreak of the 1939–45 War an understanding had been reached by the Governments of the United Kingdom and the Commonwealth which enabled exports from Australia to proceed normally even before any contracts for the sale of commodities had been concluded.

On the outbreak of hostilities, the existence of Statutory Boards for the meat, dairy produce and fruit industries facilitated war-time organization. The experience already gained in marketing control enabled the Commonwealth Government to proceed quickly with the formation of committees and/or boards in those industries where Statutory Boards or organizations had not been established previously, namely, the Central Wool

Committee, the Australian Wheat Board, the Australian Barley Board, the Apple and Pear Marketing Committee, the Australian Hide and Leather Industries Board, the Shipping Control Board, and a Committee to supervise the export of eggs.

In addition to the organizations established in respect of these commodities, a Shipping Control Board was set up to control coastal shipping should the need arise for close supervision and control of cargo movements in interstate trade. At a later stage, a Shipping Committee was established to control and supervise overseas shipping to and from Australia in conjunction with the Ministry of Shipping in the United Kingdom. For details of war-time control of shipping see p. 121, § 7, Chapter V.—Transport and Communication.

Prior to the outbreak of war, a survey was made of refrigerated and cold storage space in Australia. Thus the handling of refrigerated produce up to the time of shipment was not only facilitated, but the survey was also of material assistance in connexion with the arrangements made subsequently for the transport of commodities to the United Kingdom.

2. Wool.—The Government of the United Kingdom arranged with the Commonwealth Government to acquire the Australian wool clip for the duration of the war and one full wool season after the cessation of hostilities.

The arrangement embraced all wool, wool tops, noils and waste, not required for use by Australian manufacturers.

The principal conditions of the arrangement were:—

- (i) The United Kingdom Government to pay 10½d. (Stg.) equivalent to 13.4375d. (Aust.) per lb. flat rate price for the wool in store at the overseas port of shipment.
- (ii) The United Kingdom Government to pay up to ¾d. (Stg.) equivalent to ¾d. (Aust.) per lb. to cover all costs from store at port of overseas shipment to ship.
- (iii) The United Kingdom Government to pay to the Commonwealth Government 50 per cent. of the profits derived from wool sold for use outside the United Kingdom, such sales to be at the order and disposition of the United Kingdom Government.
- (iv) In May of each year the arrangement to be subject to review at the instance of either Government.

In May, 1942, the flat rate price payable by the United Kingdom Government was reviewed at the instance of the Commonwealth Government. The United Kingdom Government agreed to an increase of 15 per cent. in the flat rate price, thus bringing such price to 15.453125d. (Aust.) per lb.

In Australia the scheme was administered by the Central Wool Committee (with subordinate State Committees) which controlled the receipt of the wool into store, its appraisal and shipment overseas. The Central Wool Committee cabled to the United Kingdom Government the appraised value of the wool comprised in each round of appraisements and the United Kingdom Government made the necessary funds available to the Committee. These were paid to the respective growers within fourteen days of appraisal, less a percentage retained by the Central Wool Committee to enable each grower's return to be adjusted in conformity with the flat rate price paid by the United Kingdom Government. During the first season (1939-40) of operation of the scheme the amount so retained was 10 per cent. but for the 1940-41 and subsequent clips up to and including the 1943-44 clip only 5 per cent. was retained. For the season 1944-45 it was not considered necessary to retain any amount.

During the 1939-40 season the issue price of wool for Australian manufacturers was the "appraised price". From 1st July, 1940 (1940-41 season) the issue price was fixed by the Central Wool Committee at the "appraised price", plus cost of delivery plus 7½ per cent., and for the 1941-42 season the surcharge of 7½ per cent. was increased to 15 per cent.

From 1st July, 1942 onward the price to manufacturers was fixed by the Central Wool Committee according to a determination notified to it by the Commonwealth Prices Commissioner, who determined that the surcharge should be 10 per cent.

Reference to the scheme for the disposal, concurrently with future clips, of stocks of Dominion-grown wool which have accumulated during the 1939-45 War will be found in § 5 (8) of Chapter XIX. "Pastoral Production".

3. *Meat*.—From 1st October, 1939 to 30th September, 1940, the United Kingdom Government agreed to purchase f.o.b. 240,000 tons of beef, mutton, lamb, veal and pork, and to use its best endeavours to lift any additional quantities available for export. The contract embodied a long range of prices for various cuts, pieces and offals. The returns to Australian producers were satisfactory and were higher than those received during the previous season. Under the contract 90 per cent. was paid on shipment and 10 per cent. within 28 days of arrival, or in the case of a steamer being lost, the estimated due date of arrival.

The contract was renewed for the year 1st October, 1940 to 30th September, 1941, and covered beef, veal, mutton, lamb, porker pork and offals and baconer pork. Under this contract certain classes of meat were not accepted and there were slight variations in some prices.

Arrangements were made with the United Kingdom Government for the disposal of a larger proportion of Australia's meat surplus in the form of canned meats. Although this resulted in producers receiving lower prices for their total marketed product, it was possible to maintain the stability of the industry in the face of a drastic reduction in the amount of refrigerated shipping space available.

During 1942, mainly owing to shipping difficulties, there was considerable doubt whether the United Kingdom could lift all meat available, but early in 1943 the shipping position became easier, and the United Kingdom asked for as much meat as Australia could supply. However, owing to the greatly increased demands for meat for the Australian and Allied Services, which became apparent early in 1943, the "surplus" available for export was less than during pre-war years despite efforts to increase production and the increased production which resulted.

During the later months of 1943, the Commonwealth Government took steps to restrict the quantity of meat available to civilians in an endeavour to increase the quantity of meat available for export. When this action was taken, it became necessary for the Commonwealth Government to purchase mutton for export at prices more closely related to local prices.

In January, 1944, in order to ensure an equitable distribution of available supplies to civilians, coupon rationing of meat was introduced.

The United Kingdom Government was prepared to take all suitable meat which could be shipped during 1944. Owing to the heavy demands for meat for the defence forces based in Australia, the export programme for 1944, despite a high level of production and civilian meat rationing was, however, still lower than during the immediate pre-war years.

As in 1943, the programme for export to the United Kingdom during 1944 covered frozen and canned meats, dehydrated mutton and offals, the greatest demand being for frozen meat.

An agreement was completed between the Government of the United Kingdom and the Commonwealth Government for the long-term purchase of the exportable surplus of Australian meat for the period 1st October, 1944 to the 30th September, 1948.

The agreement covers all classes of meats, including sundries in the fresh, frozen, and canned forms, for the currency of the agreement with the exception of pigmeats, quantities of which were determined only until the expiry of the second year of the contract, namely 30th September, 1946. Quantities for this particular class of meat for the two succeeding years of the contract will be arranged by negotiation between the two Governments.

Prices were determined for all classes and cuts of meat for the first two years of the contract which provided that they could be reviewed at the instigation of either Government before the 30th September, 1946, in respect of each of the two final years of the agreement.

The Government of the United Kingdom agreed to reimburse the Commonwealth Government the cost of storage and interest incurred in connexion with the purchase and storage of such meat after it had been in store 28 days.

The arrangement also provides for ample opportunity to be given to the meat industry of Australia to re-engage in the chilled beef trade with the United Kingdom when the shipping position makes that possible.

A further interesting feature is that the Government of the United Kingdom will consult with the Commonwealth Government regarding the steps necessary to ensure a mutually agreeable distribution of Australian meat in the United Kingdom, and also, when the present scheme of control is withdrawn or modified, will confer with the Commonwealth Government as to the ways and means of securing an orderly resumption of private trading.

The prices determined under the long term purchase arrangement operated until 30th September, 1946, and approximated those which were being paid by the Commonwealth Government under its Meat Purchase Plan. As from 1st October, 1946, rises in prices operated for the new contract year. These rises have been passed on to the producers.

4. **Butter.**—At the outbreak of war in September, 1939, a contract was arranged between the Governments of the Commonwealth and the United Kingdom whereby the latter undertook to purchase Australia's surplus butter and cheese. The following table indicates the periods covered, target figures, actual exports, and prices per cwt. f.o.b. Australian currency for the various grades of butter, including whey butter.

The conditions of sale provided for payment of 90 per cent. on shipment, and the balance 28 days after arrival or due date of arrival.

For the year 1941-42, second, pastry and all whey butters were excluded; moreover the butter target was reduced to 57,000 tons to permit of diversion to cheese production at the request of the United Kingdom Government.

Prices were increased as from 1st July, 1942, by amounts shown in the table. Also second grade butter was re-included, and the Ministry sought 10,000 tons of dry butterfat at the following prices per cwt. f.o.b. Australian currency:—Grade 1, 195s. 7½d.; Grade 2, 181s. 3d. Actually 2,203 tons of dry butterfat were exported during that period.

Pastry and whey butters were re-included as from 1st July, 1943.

While the 1943-44 prices were the same as those applying for 1942-43, the United Kingdom Government agreed additionally to reimburse the Commonwealth Government to the extent of subsidy paid on butter and cheese exported on Ministry account during the year ended 31st March, 1944.

Early in 1945 an agreement was completed between the United Kingdom and Australian Governments covering the sale to the former of Australia's surplus butter and cheese for the four years from 1st July, 1944. The prices fixed for butter are those shown for 1944-45 in the following table. These prices applied up to 30th June, 1946, and shall also apply up to 30th June, 1948 unless either Government shall require reconsideration of such prices and conditions on substantial grounds prior to 1st May preceding the commencement of the season to which the prices shall apply.

The United Kingdom will undertake responsibility for storage costs if unable to provide ships to lift butter and cheese from store after 90 days and will make advances against stored stock in this event.

The usual provisions relative to quality, packing etc. will continue to obtain but in regard to payment the United Kingdom will pay 97½ per cent. of the value on shipment and a further 2½ per cent. 60 days after the date of the last bill of lading in respect of butter and cheese carried by the vessel.

BUTTER.

Period.	Target.	Actual.	Prices per cwt. f.o.b. Australian Currency.							
			Choice.	1st.	2nd.	Pastry.	Whey, 1st.	Whey, 2nd.	Whey Pastry.	
			s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	
20th November, 1939 to 30th June, 1940	Tons.	Tons.								
1940-41 ..	75,000	66,882	} 137 2½	} 135 7½	} 131 1½	} 127 6	} 127 6	} 122 6	} 117 6	
1941-42 ..	100,000	77,683								
1942-43 ..	57,000	46,862								
1943-44 ..	70,000	49,319								
1944-45 ..	555,000	41,717								
1944-45 ..	..	36,832	184 8½	183 1½	178 7½	175 0	175 0	170 0	165 0

(a) The United Kingdom Government asked for minimum of 55,000 tons. Australia indicated that it could supply maximum of 45,000 tons only.

The Dairy Produce Control Committee was appointed to manage the contracts for butter and cheese. The Committee works in close collaboration with the Australian Dairy Produce Board and the Commonwealth Dairy Produce Equalization Committee, Ltd., and has associated with it the State Advisory Committees.

Arrangements were made by the Committee for advances to be made in respect of butter and cheese held for shipment against the contracts and also for the insurance against war risk during such storage.

Early in 1941 the question of the adequacy of cold storage accommodation arose, and the Committee arranged for the provision of emergency cold stores at selected points, the cost being borne by the Government and the industry in equal shares.

5. **Cheese.**—The following table indicates the periods covered, target figures and prices per cwt. f.o.b. Australian currency for the various grades. Conditions for payment were on the same terms as for butter.

For the year 1941-42, the United Kingdom sought diversion from butter to cheese production, and undertook to purchase maximum quantities, with a minimum of 40,000 tons, at increased prices. Prices were increased further for the year 1942-43.

As in the case of butter the United Kingdom Government agreed to reimburse the Commonwealth Government for subsidy paid on cheese exports since 1st April, 1943.

The agreement referred to in the preceding paragraph relates to cheese also. The prices fixed are those shown for 1944-45 in the following table, which applied up to 30th June, 1946, and also for a further two years unless either Government shall require reconsideration of such prices and conditions on substantial grounds prior to 1st May preceding the commencement of the season to which the prices shall apply.

Conditions respecting payment and storage costs mentioned in the preceding paragraph apply also to cheese.

CHEESE.

Period.	Target.	Prices per cwt. f.o.b. Australian Currency.		
		Choicest, 1st.	2nd.	3rd.
	Tons.	s. d.	s. d.	s. d.
20th November, 1939 to 30th June, 1940	13,000	} 76 6½	} 74 0½	} 71 6½
1940-41 ..	20,000			
1941-42 ..	40,000	83 9	81 3	78 9
1942-43 ..	10,000	} 87 6	} 85 0	} 82 6
1943-44 ..	10,000			
1944-45 ..	..	107 6	105 0	102 6

Although provision was made in the several contracts for the supply and purchase of stated quantities of cheese, the quantities shipped were less than stipulated. Service demands in India, Egypt and elsewhere accounted for the greater part of exports. There was also considerable increase in consumption in Australia, due, no doubt, to the rationing of butter.

The arrangements in relation to cheese were controlled by the Dairy Produce Control Committee (see par. 4 above).

When the United Kingdom authorities in 1941 desired greatly increased supplies of cheese, the Committee took action to convert butter-making establishments to cheese-making, the financial burden being distributed over the industry.

6. Eggs.—During the 1939-45 War contracts were negotiated between the Governments of the United Kingdom and Australia for the purchase of Australia's surplus eggs either in the shell or, when refrigerated space was not available, in powdered form. Following the outbreak of war in the Pacific in December, 1941, the Australian demand for eggs in shell and in powdered form exceeded production and consequently later contracts were less effective in meeting the requirements of the United Kingdom.

In August, 1944, the United Kingdom Government agreed to purchase Australia's exportable surplus of eggs in shell up to the end of the 1945-46 season, and in respect of the 1946-47 season a quantity not exceeding one million cases (each 30 dozen) of eggs in shell, or equivalent dried egg powder. Towards the end of 1945 the United Kingdom Government agreed to eliminate the ceiling quantity of one million cases of eggs stipulated for 1946-47 and accept whatever quantity could be shipped as eggs in shell in that season.

The contract price in Australian currency, f.o.b. Australian ports, is 18s. 8d. per dozen, based upon a pack of 15 lb. per long hundred (ten dozens), with proportionate adjustment according to weight for 13½ and 17 lb. packs.

The United Kingdom Government made further contracts to purchase Australian egg pulp in the 1945-46 season, these contracts aggregating 14,000,000 lb. of pulp, the price being 18s. 5d. Australian currency per lb., f.o.b. Australian ports.

7. Sugar.—Arrangements were made by the Queensland Government for the sale to the British Ministry of Food of up to 100,000 tons of surplus production of raw sugar out of the 1943 and 1944 crops and 200,000 tons out of the 1945 crop. The prices fixed were £Stg. 14 5s. per ton for the 1943 crop, £Stg. 15 5s. for the 1944 crop, £Stg. 17 5s. for the 1945, and £Stg. 19 10s. for the 1946 crop c.i.f. United Kingdom ports, basis 96 degrees polarization. This price includes the existing British tariff preference of £3 15s. on Dominion sugar. It was arranged that shipments of sugar would be made to Empire and Allied consuming countries (including New Zealand and Canada) in accordance with the requirements of the Ministry of Food, as and when sugar and suitable freight were available.

8. Apples and Pears.—To meet the emergency conditions created in the apple and pear industry by the curtailment of exports following the outbreak of war, the Commonwealth Government promulgated the National Security (Apple and Pear Acquisition) Regulations to provide for the acquisition and orderly marketing of the Australian crop.

The Australian Apple and Pear Marketing Board was set up to administer the acquisition and marketing arrangements with the assistance of State Committees.

Under the scheme growers received guaranteed advances in accordance with varieties and grades in respect of all fruit acquired.

During the 1940, 1941 and 1942 seasons the acquisition applied to all States but for the 1943, 1944 and 1945 seasons the scheme operated in respect of the crops grown in Tasmania and Western Australia only.

The complete cessation of fresh fruit exports to the United Kingdom after 1940 placed the industry in a difficult position, but stability was maintained as a result of the emergency marketing arrangements.

In 1945, exports to the United Kingdom were resumed on a small scale as the result of a purchase by the British Ministry of Food of a limited quantity of Australian apples.

9. **Canned Fruits.**—The exportable surplus from the 1940 pack was subject to an arrangement between the Commonwealth and United Kingdom Governments under which the British Ministry of Food agreed to purchase canned apricots, peaches, and pears at prices fixed on an f.o.b. basis, Australian ports.

In 1941, further purchases were made by the British Ministry of Food for shipment to destinations other than the United Kingdom.

From 1942 onwards, the requirements of the Defence Services and other Governmental orders expanded rapidly and necessitated official control of disposals to ensure that these priority demands were fully met. Commercial shipments of canned fruits virtually ceased and the quantities available for civilian consumption were considerably below normal requirements. Approximately 70 per cent. of the 1945 pack was allocated to meet service and other Governmental demands.

10. **Dried Vine Fruits.**—During the six seasons from 1940 to 1945, annual contracts were entered into with the Government of the United Kingdom covering such quantities of currants, sultanas and lexias as were available each season for export to the United Kingdom. In the first two seasons prices were determined for fruit delivered into warehouse at United Kingdom ports. Subsequent purchases, however, were fixed on an f.o.b. basis, Australian ports.

From 1943 the disposal of the Australian crop as between service and civilian demands both in Australia and overseas, was subject to the allocations as determined by the Combined Food Board at Washington.

Exports to Canada were also the subject of inter-Governmental arrangements covering the quantity allocated for that destination each season.

11. **Wheat and Flour.**—The Australian Wheat Board was established at the outbreak of war to control the handling and marketing of wheat. The price of wheat for local requirements is determined by the Board. Free movement of wheat within Australia has been stopped and deliveries of wheat must be made to licensed receivers who are the receiving and distributing agents of the Board and by whom sales are made to the usual retailers. The Board has an Australian Selling Committee in London which negotiates sales of wheat and flour in the United Kingdom, and other markets.

The Commonwealth acquired 1938–39 crop wheat still in Australia, and has acquired each subsequent crop. A Pool is created for each season, and payments are made to growers.

In 1940, a Wheat Industry Stabilization Plan was introduced under which wheat farms were registered, and growers licensed. For further details see Chapter XX. § 4 (2) Wheat.

12. **Barley.**—Following the outbreak of war in 1939, the Australian Barley Board, representative of the industry was formed, and the Commonwealth Government acceded to its request to acquire the entire 1939–40 barley crop, which was placed under the control of the Board. A pool was established from which proceeds were distributed with appropriate margins for different grades of barley.

The Board is responsible for the marketing and storage of barley, and, like the Australian Wheat Board, has appointed its licensed receivers in all States to receive grain on its behalf and to act as agents for all local and overseas sales.

The Commonwealth decided not to acquire barley in the smaller producing States after 1941–42, but control was kept by the Board in South Australia and Victoria. Western Australia and Queensland then established State Barley Boards to control marketing in these States.

For further details of the operations of this Board see Chapter XX. § 7 (2) Barley.

13. **Potatoes.**—The Australian Potato Committee was set up under National Security (Potatoes) Regulations on 27th April, 1942, to ensure that adequate supplies of potatoes would be available in Australia to meet the needs of the Defence Forces and the civilian population during the war.

Planted acreages have been as follows:—

1940-41	Uncontrolled	.. .. .	122,990 acres
1941-42	" "	.. .. .	99,324 "
1942-43	Controlled by Australian Potato Committee	.. .. .	140,209 "
1943-44			192,075 "
1944-45			241,803 "

War-time control covered production of quantities needed for all purposes, the regulation of marketing and distribution to meet service and civilian needs, and the spreading of supplies over the season.

A guaranteed minimum price was assured for the first season, any excess of market return above the minimum going to growers. For later seasons there was a fixed contract price, allowing supplies to be directed according to needs rather than market prices.

Production was arranged through State Departments of Agriculture, which supervised controls of grading. Distribution was arranged through trade channels, which marketed the Commonwealth owned potatoes.

The Committee worked through an Executive Member, with State Deputies, assisted by Advisory Committees of State officers, growers and merchants.

Supplies from growers were controlled by delivery quotas to regulate the flow on to the market. Quotas for merchants to market applied when supplies were scarce.

The retail price was subsidized under the Price Stabilization policy, and was less than the growers' contract price.

The system gave favourable conditions for growers, and their organizations are moving for stabilization of the industry on similar lines in the post-war period.

14. **Hides and Leather.**—Late in 1939 it became necessary to introduce a scheme for the control of the marketing of hides and leather and suitable action was taken by Regulations under the National Security Act. The Australian Hide and Leather Industries Board was appointed to administer the scheme.

All cattle hides and yearling and calf skins were to be submitted for appraisalment in accordance with a Table of Limits prepared by the Board. On appraisalment they were acquired by the Board acting on behalf of the Commonwealth and thereupon became the property of the Commonwealth. The owners of the hides and skins immediately prior to acquisition received compensation at varying rates determined by the Minister from time to time. Hides and skins acquired by the Board are sold on behalf of the Commonwealth. Tanners' purchases of hides are regulated and exports of hides, skins and leather are controlled.

When the scheme commenced, hide export prices were much higher than the domestic appraised prices. About the middle of 1940, however, the oversea market for hides and skins collapsed. The scheme stood the strain of the reversed position. Appraisalment continued as before, the rates of compensation to hide owners were reduced by 25 per cent. for a time and the fund already built up by the Board acted as a cushion for the change-over period.

The export price position later improved and continued to improve to such an extent that, about the end of 1941, the healthy position of the Board's funds enabled compensation to be paid to the original owners of hides at the rate of 110 per cent. of the appraised prices. The rate of compensation has since varied from time to time according to the state of the Board's finances. The exceptionally heavy demand for hides for the production of leather necessary to manufacture large quantities of military boots resulted in a war-time demand by Australian tanners for hides, which exceeded Australian hide production. A special arrangement was entered into with the New Zealand Government for the purchase of New Zealand hides, and additional quantities were sought from other sources of supply. The exportation from Australia of sole leather suitable for the production of military boots has been prohibited for some years. The future of the control scheme is under consideration, which will have regard to the interests of all sections of the hide and leather industries.

15. **Rabbit Skins, and Hats.**—A marketing control scheme for rabbit skins was introduced under the National Security (Rabbit Skins) Regulations on 10th June, 1940. After the outbreak of war, rabbit skin prices rose sharply owing to the keen demand from overseas. In order that the prices of military and civilian hats in Australia might be kept at reasonable levels and that sufficient skins should be available to Australian hat manufacturers at prices which would enable them to produce hats at those price levels, a scheme of marketing control became necessary.

The Australian Rabbit Skins Board was appointed to administer the scheme. The basis of the scheme is the payment to hat manufacturers of compensation equivalent to the difference between appraised prices in a Table of Limits prepared by the Board, which are based on a Commonwealth Prices Commission determination, and ruling open market prices.

Funds for the payment of such compensation are provided by collections from a levy imposed on the export of rabbit skins under the Rabbit Skins Export Charges Act 1940. Since 1941 rabbit-skin prices have been extraordinarily high. The rate of export levy has fluctuated on a number of occasions according to the state of the Board's finances. In some periods the levy was entirely suspended, whilst the highest rate it has reached was 18d. per lb. The imposition of the levy was suspended in October, 1944, and during this period the Board operated on reserve funds. It was renewed in July, 1946, but in January, 1947, approval was given for its suspension for a period of three months. In order that compensation payments should be kept as low as possible, the quantities of rabbit skins which hat manufacturers may buy at appraised prices are closely regulated. Investigations into the operations of all Australian hat manufacturing establishments have enabled the Board to do this, although the position was complicated by the heavy demand for military fur felt hats. The future of the scheme in the post-war period is under consideration.

16. **Sheepskins.**—In April 1940, the United Kingdom Government agreed with the Commonwealth Government to acquire the "exportable surplus" of woolled sheepskins in Australia.

The "exportable surplus" is determined by competition at auction between Australian fellmongers and export packers licensed in terms of their pre-war trade in such product.

The price of the woolled skins is fixed by appraisalment under the Sheepskin Table of Limits, which takes into account the following factors:—

- (a) The wool content—the value of which is fixed in relation to the "scoured skin wool" section of the Wool Table of Limits;
- (b) the value of the pelt—which is reviewed quarterly; and
- (c) the cost of fellmongering the skins.

17. **Tobacco.**—The Australian Tobacco Board was constituted under National Security (Australian Tobacco Leaf) Regulations, promulgated on 9th May, 1941, for the purpose of facilitating and regulating the marketing of Australian-grown tobacco leaf. The Board consists of a Commonwealth Government representative as Chairman, five members representing the growers, two members representing tobacco manufacturers, and two members representing the brokers engaged in selling local leaf.

All Australian produced tobacco leaf must be submitted to the Board for appraisalment in accordance with the regulations. An Appraisal Committee, consisting of a broker's appraiser acting on behalf of the growers and a manufacturer's appraiser, together with a Government arbiter, determines the grade and value of the leaf in accordance with an approved table of limits. Appraisements are carried out each season at Brisbane, Melbourne and Perth.

§ 16. The National Safety Council of Australia.

The National Safety Council of Australia was founded in Melbourne in 1927 for the purpose of developing, mainly by means of education, safety on the road, at work and in the home, and its activities have developed in other directions wherever the

need for reducing the toll of accidents has been shown. In various States it issues by courtesy of the Traffic Authorities a booklet with every motor driver's licence, and conducts continuous propaganda through the press and other sources. It also forms Junior Safety Councils in the schools for developing a safety conscience among children. The children themselves are officers of these Councils and patrol the roads in the neighbourhood of the schools and conduct the scholars across in safety. Posters are available to schools at cost in connexion with Health and Safety lessons in the schools. Small films specially taken are available for children's and home safety instruction.

A "Safe Driving" campaign for individual motor drivers is conducted as well as a "Freedom from Accidents" competition among employee drivers, those completing a year free from any accident for which they are responsible being given a certificate to that effect. An Industrial Service of four posters per month, together with slips for pay envelopes, constitutes a regular service for the dissemination of safety advice, and was supplied to over 100,000 workers in factories last year. Committees deal with specific problems regarding traffic, films, safety in industry, air safety and home dangers. The Air Safety Committee has issued a 32-page booklet "Air Sense" for distribution with "A" pilots' licences through the Civil Aviation Department, and has a plan for emergency night landings for aircraft in difficulties.

The Council is supported by a Government Grant, public subscription and sales of service, and is a non-profit organization. Its work is carried on by a small paid staff controlled by committees and governed by an executive. The following committees, whose work is of an entirely honorary nature, are in operation, namely, Executive, Traffic, Industrial Safety, Home, Air Safety and Propaganda.

§ 17. League of Nations.

In issue No. 35 and earlier issues of the Official Year Book information was given concerning the League of Nations. The dissolution of the League and the transfer of certain of its functions to the new body, the United Nations, are now being effected (see § 18 hereinafter).

§ 18. The United Nations.

1. *General.*—The Moscow Declaration of 1943 concerning a new international organization for the maintenance of international peace and security marked the end of the League of Nations. The dissolution of the League, and the transfer of certain of its functions to the new body, the United Nations, are now being effected.

The Charter of the United Nations was drawn up by the delegates of fifty nations at the United Nations Conference on International Organization at San Francisco from 25th April to 26th June, 1945. Australia's ratification was deposited on the 1st November, 1945. The Charter has been ratified by fifty-one States in all: Argentina, Australia, Belgium, Bolivia, Brazil, Byelorussia, Canada, Chile, China, Colombia, Costa Rica, Cuba, Czechoslovakia, Denmark, Dominican Republic, Ecuador, Egypt, El Salvador, Ethiopia, France, Greece, Guatemala, Haiti, Honduras, India, Iran, Iraq, Lebanon, Liberia, Luxembourg, Mexico, Netherlands, New Zealand, Nicaragua, Norway, Panama, Paraguay, Peru, Philippine Commonwealth, Poland, Saudi Arabia, Syria, Turkey, Ukraine, Union of South Africa, Union of Soviet Socialist Republics, United Kingdom, United States of America, Uruguay, Venezuela, Yugoslavia.

The full record of the Conference is contained in the Report by the Australian Delegates on the United Nations Conference on International Organization held at San Francisco, United States of America, from 25th April to 26th June, 1945.

The Australian delegates to the Conference were the Rt. Hon. F. M. Forde, M.P., and the Rt. Hon. H. V. Evatt, K.C., M.P.

At San Francisco an Executive Committee and a Preparatory Commission were established, and when these bodies had completed their work of preparation for the first meeting of the United Nations, the General Assembly met in London on 10th January, 1946. At this meeting the Assembly carried out the elections to the other major organs of the United Nations. These major organs are the General Assembly, the Security Council, the Economic and Social Council, the Trusteeship Council, the International Court of Justice and the Secretariat.

2. **The General Assembly.**—This is the forum of the United Nations. In it each member state is represented and has one vote. It meets in regular annual sessions and has provision for special sessions. It has power to discuss any matter within the scope of the Charter and to make recommendations upon it; an exception to this is provided by disputes which are before the Security Council. The Assembly elects the non-permanent members of the other major organs and considers annual reports from them. Upon the recommendation of the Security Council, it may expel a member which has persistently violated the principles of the Charter.

The Australian Delegation to the first meeting of the General Assembly comprised :—as delegates : the Hon. N. J. O. Makin, Minister of State for the Navy and Munitions, the Rt. Hon. J. A. Beasley, Resident Minister in the United Kingdom, Lieutenant-Colonel W. R. Hodgson, Australian Minister in Paris; as alternate delegates : Mr. A. Watt, Professor K. H. Bailey, Dr. E. R. Walker, Mr. P. Hasluck and Mr. A. Tange.

3. **The Security Council.**—This has the primary responsibility for the maintenance of international peace and security. It is composed of certain permanent members, namely China, France, the United Kingdom, the Union of Soviet Socialist Republics and the United States of America, and six non-permanent members with two year periods of office. On procedural matters, decisions are taken by an affirmative vote of any seven members. But on all other matters, decisions can only be made on the affirmative vote of seven members, including the concurring votes of all the permanent members. However, the powers which are parties to a dispute for peaceful settlement do not vote.

At the first election, three non-permanent seats were filled for one year only. Member states elected for this period were Egypt, Mexico and the Netherlands. Australia, Brazil and Poland were elected for two-year periods.

The Security Council is assisted by a Military Staff Committee consisting of the Chiefs of Staff of the permanent members of the Council. In the event of measures other than armed force failing to remove a threat to peace, plans for the application of armed force are made by the Security Council with the assistance of this committee. The forces required are to be drawn from the member states as a result of particular agreements between those states and the Security Council.

4. **The Economic and Social Council.**—This body consists of eighteen members, each elected for a period of three years. Its main functions are to make studies and recommendations upon educational, economic, social, cultural, health and related matters. It may set up commissions for these subjects and establish working relationships with relevant international agencies.

The first election staggered the periods of office, and resulted as follows :—Canada, Chile, China, Belgium, France and Peru were elected for three year terms; Cuba, Czechoslovakia, India, Norway, United Kingdom, and Union of Soviet Socialist Republics, for two year terms; and Colombia, Greece, Lebanon, Ukraine, the United States and Yugoslavia, for one year terms.

5. **The Trusteeship Council.**—The Charter states that the political, social, cultural and economic advancement of the non-self-governing territories is a sacred trust. In addition, a Trusteeship Council is to be set up composed of those members administering trust territories together with a number of members without trust territories. Territories which may be placed under trusteeship in accord with individual trusteeship agreements are those now held under mandate, those detached from enemy states of the second World War and those dependent territories placed under the system by the states responsible for their administration. The Council cannot be set up until the conclusion of trusteeship agreements.

The Council has among its duties the consideration of annual reports submitted by the trustee state, the carrying out of periodic inspections by agreement with it, and the formulation of questionnaires on the welfare and advancement of the dependent peoples.

6. **The International Court of Justice.**—This consists of fifteen judges, no two of whom may be nationals of the same state. Its jurisdiction comprises all cases which the parties refer to it, and all matters especially provided for in the Charter or in treaties and conventions in force. States may declare that they recognize as compulsory its jurisdiction in all disputes of an international legal character.

The judges first elected are :—Nine year term : Professor Jules Basdevant (France), Dr. J. G. Guerrero (El Salvador), Sir Arnold McNair (United Kingdom), Dr. Alejandro Alvarez (Chile), and Dr. J. P. de Barros Azevedo (Brazil) ; Six year term : Dr. Charles de Visscher (Belgium), Professor S. B. Krylov (Union of Soviet Socialist Republics), Lic. Isidro Fabela Alfaro (Mexico), the Hon. Green H. Hackworth (United States of America), and Dr. Juris. H. Klaestad (Norway) ; Three year term : Dr. Hsu Mo (China), H. E. Abdel Hamid Badawi Pasha (Egypt), Mr. J. E. Read, K.C. (Canada), Dr. Milovan Zoricic (Yugoslavia), and M. Bohdan Winiarski (Poland).

7. **The Secretariat.**—The Secretary-General is the head of the Secretariat of the organization. He is appointed by the General Assembly upon the recommendation of the Security Council, and he appoints his staff in accordance with rules approved by the General Assembly. M. Trygve Lie (Norway) has been appointed first Secretary-General.

§ 19. Rent Control.

1. **Need for Rent Control.**—Prior to the outbreak of the 1939–45 War, rent control legislation existed in Victoria and Queensland only. When hostilities commenced, the need became immediately apparent for more rigid control of the relationship between landlord and tenant in order to avoid rent inflation arising from increased spending power and from the exploitation of the acute shortage of housing accommodation in areas surrounding military camps and war-time industries.

On the 9th September, 1939, a conference on war-time controls between the Premiers of all States and Commonwealth authorities resolved that all the States would co-operate with the Commonwealth in setting up the machinery necessary for rent control and that in effecting this the existing instrumentalities would be retained as far as possible.

2. **National Security (Fair Rent) Regulations, September, 1939.**—On 29th September, 1939, the Commonwealth, under its emergency powers, issued the National Security (Fair Rent) Regulations in order to provide a basis for action in those States lacking rent control legislation. These Regulations empowered the Governor-in-Council of a State to constitute Fair Rents Boards and also gave him discretionary power to fix the maximum rents of certain classes of premises at the 31st August, 1939 level during the period ending the 31st December, 1939. The two main features of the Regulations were the provisions enabling Fair Rents Boards to determine Fair Rents, and those protecting tenants against eviction.

The powers given to the States under the Regulations were accepted by Victoria, Queensland, and Tasmania, where rents were pegged at the rates in operation on the 31st August, 1939, and Fair Rents Boards were constituted. The Commonwealth Regulations were also introduced in the two territories administered by the Commonwealth, and Fair Rents Boards were constituted at Canberra and Darwin. In the other three States steps were taken to give effect to the decision of the Premiers' Conference by the introduction of State legislation.

An important feature of Rent Control in the Commonwealth up to this stage was that the Fair Rents Regulations could not be enforced in any State by the Commonwealth Government and their introduction was left to the discretion of the Governor-in-Council of the State concerned.

3. **National Security (Landlord and Tenant) Regulations, November, 1941.**—On the 28th November, 1941, new Regulations under the name of National Security (Landlord and Tenant) Regulations were brought into operation. Their general effect was to give greater security to tenants and to extend that security to tenants in States where, in the opinion of the Government, local legislation was inadequate. They covered all premises except those ordinarily let for holiday purposes only, premises licensed for the sale of spirituous and fermented liquors, and premises of agricultural properties, and they applied to any part of any premises separately let, and to furnished premises.

The provisions of the Regulations relating to termination of tenancies, the recovery of possession of premises and the ejectment of tenants from premises were expressed so as to apply in each State and Territory of the Commonwealth. Moreover, the Minister could, by Order, apply the other provisions of the Regulations to any State or Territory where he was satisfied that the law of that State or Territory did not sufficiently carry out the object of the Regulations. Orders to this effect were made in respect of New South Wales on the 28th November, 1941, the Australian Capital Territory on the 29th December, 1941, Tasmania on the 7th March, 1942, Victoria on the 26th March, 1942, Queensland on the 13th April, 1942, and Northern Territory on the 29th January, 1943.

These regulations were subjected to considerable amendment between their introduction and the date upon which they were repealed. Generally speaking, however, their main features were the following :—

- (i) *Determination of Rents.* The maximum rent of all premises to which the Regulations applied was fixed at the amount ruling at the "prescribed date" declared by the Minister in respect of the State or Territory in which the premises were situated. In the cases of Victoria and Queensland the 31st December, 1940 was fixed as the prescribed date, while, in the cases of New South Wales, Australian Capital Territory, Tasmania and Northern Territory, the date so fixed was the 31st August, 1939. The Regulations also made provision whereby the landlord or tenant could apply to a Fair Rents Board for a determination of the fair rent of the premises.
- (ii) *Termination of Tenancies.* The Regulations provided that a landlord should not undertake any proceedings for the ejectment of his tenant or the termination of the tenancy except in the manner prescribed. The Regulations limited the grounds on which notice to quit might be given and prescribed the period of the notice.

4. **Conference with Magistrates, March, 1943.**—At the end of March, 1943, a Conference with Magistrates at Canberra recommended that some central organization should be set up which would be in a position to give advice when required, and which could co-ordinate the activities of the Fair Rents Boards and take action to ensure as far as possible that a uniform policy was followed in determining rents.

Partly as a result of this Conference, it was decided that steps should be taken to repeal the old Regulations and to replace them by new Regulations, which were not, however, gazetted until 15th June, 1945. Their operation was postponed until the 2nd July, 1945, in order to enable the public to become acquainted with them.

5. **New Regulations, June, 1945.**—The most outstanding change in the new Regulations was in the field of rent control, provision being made for the appointment of a Commonwealth Rent Controller with power to fix the rent of rooms and other shared accommodation. In the cases of all other premises, the determination of rents was still left with the Fair Rents Boards. It was felt that this change would not only afford relief to the Fair Rents Boards which had in many cases been overtaxed by the number of applications before them, but would also permit a more simple and speedy determination of room and apartment rents. The Regulations provided for appeal from the Controller to a Fair Rents Board.

These Regulations, as before, not only protected tenants against excessive rents but also gave them security of tenure. The provisions of the Regulations governing rent control applied throughout the Commonwealth except in South Australia and Western Australia. The remaining provisions of the Regulations applied in all States and Territories of the Commonwealth.

The Minister had power by order to exclude any premises from the operation of the Regulations, and, by an order dated the 2nd July, 1945, the following premises were excluded :—

- (1) Premises licensed for sale of spirituous or fermented liquors.
- (2) Premises ordinarily leased for holiday purposes only.

The new Regulations, when first issued, were administered by the Minister for Trade and Customs. On the 16th October, 1945, however, their administration was transferred to the Minister of State for Works and Housing under whom it was extended to 31st December, 1947 by the Defence (Transitional Provisions) Act 1946.

6. Appointment of Commonwealth Rent Controller and Deputy Rent Controllers.—On 2nd July, 1945, a Commonwealth Rent Controller was appointed and on the same date he appointed Deputies in the various States and Territories of the Commonwealth. The Deputy Rent Controllers deal with applications for determinations of rent in the case of shared accommodation, investigate any breaches of the Regulations and take all steps necessary to ensure compliance with them.

The Controller does not personally engage in the determination of rents of shared accommodation. His task is to co-ordinate the activities of his various Deputies and to ensure as far as possible their uniform carrying out of policy. All matters for prosecution are referred to him for consideration before any proceedings are commenced.

7. Regulations for Protection of Members of Forces and War Workers.—While the National Security (Landlord and Tenant) Regulations applied to civilian tenants, various provisions were inserted in other Regulations to give special protection to members of the forces and to war workers. Thus National Security (War Service Moratorium) Regulations, administered by the Attorney-General, contained rent provisions which conferred additional protection on persons who were "protected persons" within the meaning of the Regulations, and also enabled a protected person to require the owner to let to him a dwelling house which was vacant or about to become vacant. Protection was also extended to members of the Civil Construction Corps and their dependants by a provision in National Security (Allied Works) Regulations. Special provision for war workers in regard to rents and rented premises was also made in National Security (Housing and Accommodation) Regulations.

§ 20. Directorate of Housing.

In July, 1945, the Commonwealth Government created the portfolio of Works and Housing, thus amalgamating under one Minister a number of housing functions previously shared by several Commonwealth Departments. Within the new department the Directorate of Housing was charged with the exercise of these functions.

The chief function of the Directorate is the administration of the Commonwealth and State Housing Agreement, under which the Commonwealth and State Governments are co-operating in a plan to provide good standard homes for letting to families at rentals within their means, and under certain circumstances for sale. The main feature of the Agreement is a system of rental rebates, the basic principle of which is that families earning the basic wage need not pay more than one-fifth of their income in rent, regardless of the economic rent of the dwelling. As the family income rises above or falls below the basic wage, so will the rebate diminish or increase. The Commonwealth will bear three-fifths, and the State concerned two-fifths, of all losses occasioned by the rental rebate system.

To keep Australia abreast of housing developments, the Directorate undertakes technical and economic research on various aspects of housing and maintains a close watch on the latest thought and practice in developments overseas. Methods and

policies which might be useful to State housing authorities and other interested bodies are published in a Bulletin published at regular intervals, and a regular flow of informative material is passed on to the States.

The Directorate is responsible, now under the Defence (Transitional Provisions) Act 1946, for the administration of the former National Security (Landlord and Tenant) Regulations. The Premiers' Conference held in August, 1945, considered that so long as there was a housing shortage, some form of rent control was essential, and accordingly they agreed that the existing rent and tenancy controls should continue to be exercised by the Commonwealth Government.

As a result of the transfer of the control of building materials to the States on 1st November, 1945, the control exercised by the Directorate over materials is now confined to the interstate allocation of scarce materials produced in one or two States but needed by all of them. As part of its policy of helping the several State housing authorities to develop their construction programmes, the Directorate undertakes manifold tasks, particularly in connexion with the procurement of an adequate and properly timed supply of man-power and materials.

Finally, the Directorate is administering the National Security (Commonwealth War Housing Trust) Regulations pending the completion and liquidation of the Trust's projects. This involves the control, management, staffing and operation of hostels erected or sponsored by the War Housing Trust for persons engaged in war industries, as well as responsibility for capital expenditure in connexion with the permanent homes and war-time dwellings provided by the Trust for war workers.

§ 21. War Service Homes.

The operations of the War Service Homes Commission at 30th June, 1946 may be set out briefly as follows:—Applications approved, 46,921; expenditure on provision of homes, purchase of land for future use, etc., £30,507,705; houses completed, 21,488; homes enlarged, 34.

In addition, the Commission had purchased on behalf of eligible applicants 13,225 already existing properties, and had taken over mortgages existing on 3,238 dwelling-houses. Dual assistance had been approved in respect of 38 applications, making the total number of homes provided under the War Service Homes Act 38,023. Homes are insured under a comprehensive policy, the total insurances in force, including cover notes, amounting to £16,156,716. The total receipts of the Commission to 30th June, 1946 were £35,920,263, of which £15,228,985 was paid to the National Debt Sinking Fund. Arrears of instalments outstanding at the close of the year were £378,615, or 1.21 per cent. of the total instalments due.

In April, 1941 the War Service Homes Act was amended to provide for the granting of assistance to certain classes of eligible persons and their dependants in respect of service during the 1939-45 War.

§ 22. Daylight Saving.

Daylight saving during summer time was introduced throughout Australia by the Commonwealth Government under the National Security Regulations. Summer time was fixed at one hour in advance of standard time in all States from 2 a.m. on 1st January, 1942 to 2 a.m. on 29th March, 1942, and from 2 a.m. on 27th September, 1942 to 2 a.m. on 28th March, 1943, and in all States, except Western Australia, from 2 a.m. on 3rd October, 1943 to 2 a.m. on 26th March, 1944. At the Premiers' Conference held at Canberra in August, 1944, it was decided that ordinary time should be observed during the 1944-45 summer. No adjustment was made during 1945-46.

§ 23. Commonwealth Food Control.

Issue No. 35 contains an article dealing with Australia's food production position prior to and during the 1939-45 War, and the control of food and the organization required to effect it during the war.

CHAPTER XXIX.

STATISTICAL ORGANIZATION AND SOURCES OF INFORMATION.

§ 1. General.

Development of Australian Statistics.—(i) *General.* An outline of the history and development of statistics in Australia is published in Official Year Book No. 19 (see p. 988) and previous issues, particular reference being made to the Crown Colony Blue Books, Statistical Registers, Prominent State Statisticians, Statistical Conferences, the Foundation of the Federal Bureau, and Uniformity of Statistical Control. It is not proposed to repeat this information in this issue.

(ii) *Present Organization.*—The organization in respect of the collection, tabulation, etc., of statistical data as between the State and Commonwealth Statistical Bureaux, and State and Commonwealth Government Departments, is described in Official Year Book No. 19, p. 990. Limits of space preclude its repetition in this issue.

§ 2. Statistical Publications of Australia.

1. **General.**—The official statistical publications of Australia may be divided bibliographically into two main divisions, namely :—(1) Commonwealth publications dealing both individually and collectively with the several States of Australia; and (2) State publications dealing with individual States only. Besides these there are many other circulars, press notices, etc., issued regularly which, though not wholly statistical, necessarily contain a considerable amount of statistical information.

2. **Commonwealth Publications.**—Commonwealth publications may be grouped under two heads, namely :—(i) Publications issued by the Commonwealth Statistician; and (ii) Parliamentary and Departmental Reports and Papers.

(i) *Publications issued by the Commonwealth Statistician.* The following is a list of the principal statistical publications issued from the Commonwealth Bureau of Census and Statistics since its inauguration to May, 1947 :—

Australian Life Tables, 1901-1910. Australian Joint Life Tables, 1901-1910.

Australian Life Tables, 1920-1922.

Australian Life Tables, 1932-1934. Australian Joint Life Tables, 1932-1934.

Australian Primary Industries.—Report prepared for the Empire Producers Conference, Sydney, March, 1938.

Census (1911) Results.—*Bulletins*, Vols. I., II., and III., with Appendix "Mathematical Theory of Population."

Census (1921) Results.—*Bulletins*, Nos. 1 to 26. Parts I. to XVI., forming Vol. I., and Parts XVII. to XXIX., forming, with the Statistician's Report, Vol. II.

NOTE.—PART XXVII., Life Tables.

Census (1933) Results.—*Bulletins*, Nos. 1 to 25. Parts I. to XIV., forming Vol. I., Parts XV. to XXVIII. forming Vol. II., and Parts XXIX. to XXXVII., forming with Statistician's Report, and Australian Life Tables 1932-34, Vol. III.

Crop Summary—Annually 1943-44 to 1945-46.

Dairying Summary, Monthly.—First issue, September, 1937.

Finance—*Bulletins*, 1907 to 1916-17 annually; 1917-18 and 1918-19 (one vol.); 1919-20 and 1920-21 (one vol.); 1922-23 to 1944-45 annually.

Fruit Summary, Annual.—First issue, 1944-45.

Labour and Industrial Statistics.—Memoranda and Reports, various, to 1913.

Labour Report, annually, 1913 to 1944.

Live-stock Summary, Annual—1943 to 1946.

Local Government in Australia.—July, 1919.

Monthly Review of Business Statistics.—First issue, October, 1937.

Occupation Survey (1945) Results—Detailed tables.

Official Year Book of the Commonwealth of Australia—Annually, 1907 to present issue (1944 and 1945).

Oversea Trade, annually, 1906 to 1945-46.

Pocket Compendium of Australian Statistics (formerly *Statistical Digest*), 1913, 1914, 1916, and 1918 to 1946 annually.

Population and Vital Statistics.—Bulletins and Reports, various, 1906-1910. *Demography*, 1911 to 1944 annually.

Production.—Bulletin, annually, 1906 to 1944-45. From 1936-37 issued in two parts: Part I. Secondary Industries; Part II. Primary Industries and Total Recorded Production.

Professional Papers.—Various. A full list appears in *Official Year Book* No. 13, p. 3.

Quarterly Summary of Australian Statistics.—First issue, No. 70, December, 1917, replacing *Monthly Summary of Australian Statistics* (Bulletins Nos. 1 to 69).

Social Insurance—Report to the Hon. the Minister of Trade and Customs, 1910.

Social Statistics—Bulletins, 1907 to 1915 annually, and 1918.

Superannuation for the Commonwealth Public Service—Report to the Hon. the Minister for Home Affairs, 1910.

Transport and Communication—Bulletins, 1906, 1908 to 1916 annually; 1919 to 1930 annually, and 1932 to 1944-45 annually.

Vegetable Summary, Annual—1942-43 to 1945-46.

Wages and Prices.—January, 1932.

Wealth—The Private Wealth of Australia and its Growth as ascertained by various methods, together with a Report on the War Census in 1915.

Wheat Summary, Periodical—First issue, July, 1936.

(ii) *Commonwealth Parliamentary and Departmental Reports and Papers*. Lists of the principal official reports and other documents containing statistical information issued from the inauguration of the Commonwealth appear in the *Official Year Books* up to No. 15, but limits of space preclude the incorporation of this information in the present volume.

3. *State Publications*.—The chief statistical publications of each State are set out hereunder. Limits of space preclude a further enumeration of the various Departmental Reports, statements of accounts, etc., issued by officials, boards, local government bodies, etc., in each State.

(a) New South Wales—Statistical Register (annual); *Official Year Book of New South Wales* (annual); *Statesman's (Pocket) Year Book* (annual); *Statistical Bulletin* (monthly to December, 1919, thereafter quarterly); *Monthly Summary of Business Statistics*.

(b) Victoria—Statistical Register (annual to 1916, then discontinued); *Victorian Year Book* (annual); *Statistical Abstracts* (quarterly to 1917, then discontinued to December, 1946).

(c) Queensland—Statistical Register (annual); *Official Year Book*, 1901; *A.B.C. of Queensland Statistics* (annual to 1936, then discontinued); the *Queensland Year Book* (annual 1937 to 1941, then discontinued to 1945).

(d) South Australia—Statistical Register (annual); *Official Year Book*, 1912 and 1913; *Statesman's Pocket Year Book* (annual); *Quarterly Summary of Statistics*.

(e) Western Australia—Statistical Register (annual); *Statistical Abstracts* (quarterly, previously issued monthly to July, 1917); *Pocket Year Book of Western Australia* (annual).

(f) Tasmania—Statistical Register (annual); *Pocket Year Book* (annual); *Monthly Review of Business Statistics*.

§ 3. Select List of Representative Works Dealing with Australia.

(Compiled by the Librarian of the Commonwealth National Library.)

Under each heading a list is first given of the principal standard books which are still in print. This is followed by lists of selected books published during the current period and of official publications, excluding annual reports, of the same period. In the present list the period covered is 1st October, 1943 to 31st December, 1945. A few books which, though published earlier, were received after the compilation of the last issue are also included.

Technical works on Law, Medicine and the pure sciences are excluded.

Where known the retail price in the country of publication is given, but this is subject to fluctuation.

A copy of each of the works mentioned is preserved in the Library and access thereto may be had by any Commonwealth official or other authorized person.

The Library also publishes an annual catalogue of Australian publications, official papers and books on Australia published overseas. Copies of this are obtainable from the Government Printer at a price of 2s.

General and Descriptive.

- AUSTRALIAN ENCYCLOPEDIA, THE: *editors*, A. W. Jose, H. J. Carter and T. G. Tucker. 2 vols. (Angus & Robertson, 55s.) 3rd edition, Sydney, 1926-27 (o.p., but new edition printing).
 AUSTRALIAN NATIONAL PUBLICITY ASSOCIATION. Australia: official handbook. (The Association, 3s. 6d.) Melbourne, 1941.
 GRATIAN, C. H. *Introducing Australia*. (Angus & Robertson, 12s. 6d.) Sydney, 1944.
 HANCOCK, William Keith. *Australia*. (Australasian Publishing Co., 1s. 11d.) Sydney, 1945. (First published in Great Britain in 1930.)
 MADIGAN, C. T. *Central Australia*, 2nd ed. (Oxford University Press, 15s.) Melbourne, 1944.
 OFFICIAL YEAR BOOK OF THE COMMONWEALTH OF AUSTRALIA, Nos. 1 to date. (Government Printer, 5s. *per issue*.) Canberra, 1908 to date.
 TAYLOR, T. G. *Australia: a study of warm environments and their effect on British settlement*. (Methuen, 21s.) London, 1940.
 WALKABOUT: *Australia and the South Seas*. (Australian National Publicity Association, 12s. *per annum*.) Melbourne, 1934 to date.
 WOOD, T. *Cobbers: a personal record of a journey from Essex, in England, to Australia*. (Oxford University Press, 6s. 6d.) Melbourne, 1943.

RECENT PUBLICATIONS.

Official.

- AUSTRALIA:—*Information Department*. South-west Pacific annual, 1944. (Government Printer, 2s.) Sydney, 1944.

Other.

- BARRETT, C. L. *Isle of mountains: roaming through Tasmania*. (Cassell, 12s. 6d.) Melbourne, 1944.
 DENNING, W. E. *Capital city: Canberra to-day and to-morrow*: 2nd ed. (Verity Hewitt, 6s.) Canberra, 1944 [1945].
 DEVANNY, J. *Ry tropic sea and jungle: adventures in North Queensland*. (Angus & Robertson, 7s. 6d.) Sydney, 1944.
 FENNER, C. A. E. *Mostly Australian*: 12 drawings by J. C. Goodchild. (Georgian House, 12s. 6d.) Melbourne, 1944.
 HARDING, W. G. *An American looks at Australia*. (Review and Herald Publishing Association, \$2.) Washington, 1943.
 HURLEY, P. J. *In search of Australia*. (Dymock's Book Arcade, 12s. 6d.) Sydney, 1943.
 MARSHALL, A. *These are my people*. (Cheshire, 8s. 6d.) Melbourne, 1944.
 MITCHELL, E. *Speak to the earth*. (Angus & Robertson, 12s. 6d.) Sydney, 1945.
 MORRIS, M. E. S. *Australian landscape*: edited by Sydney Ure Smith. (John Sands, 5s.) Sydney, 1943.

Reproductions of landscapes by Australian artists with a descriptive article by Myra Morris.

Territories Outside Australia.

- AUSTRALIA:—*Committee* . . . [on] the possibility of establishing a combined administration of the territories of Papua and New Guinea, etc. Report. (Government Printer, 3s.) Canberra, 1939.
 AUSTRALIA:—*External Affairs, Department of*. Handbook and index to accompany a map of Antarctica produced by the Department of the Interior, 1939: by E. P. Bayliss and J. S. Cumpston. (Department of External Affairs, 5s.) Canberra, 1940.
 EGGLESTON, F. W., *editor*. *The Australian mandate for New Guinea*. (Melbourne University Press, 5s.) Melbourne, 1928.
 FORTUNE, R. F. *Man: religion*. (Pennsylvania University Press, \$3.) Pittsburgh, 1935.
 LETT, L. *The Papuan achievement*: 2nd ed. (Melbourne University Press, 10s. 6d.) Melbourne, 1945.
 MALINOWSKI, B. *Argonauts of the Western Pacific*. (Routledge, 25s.) London, 1922.
 Coral gardens and their magic: a study of the methods of tilling the soil and of agricultural rites in the Trobriand Islands, 2 vols. (Allen & Unwin, 42s.) London, 1935.

Territories Outside Australia—continued.

- MEAD, M. From the South Seas: studies of adolescence and sex in primitive societies. 3 vols. In 1. (Morrow, \$4). New York, 1939.
- OFFICIAL HANDBOOK OF NEW GUINEA. (External Territories Department, 7s. 6d.) Canberra, 1937. (Re-issued 1943 with supplements.)
- WHITING, J. W. M. Becoming a Kwoma: teaching and learning in a New Guinea tribe. (Yale University Press, \$2.75.) New Haven, 1941.
- WILLIAMS, F. E. Drama of the Oroko. (Oxford University Press, 30s.) Oxford, 1940.
- Orokaiva magic. (Oxford University Press, 12s. 6d.) Oxford, 1928.
- Orokaiva society. (Oxford University Press, 25s.) Oxford, 1930.
- Papua of the Trans-Fly. (Oxford University Press, 30s.) Oxford, 1936.
- See also the annual reports of the Administrators of the various Territories, the anthropological reports of the Governments of Papua and New Guinea, and material appearing in *Oceania*.

RECENT PUBLICATIONS.

- LETT, L. Papua: its people and its promise—past and future. (F. W. Cheshire, 7s. 6d.) Melbourne, 1944.
- Papuan gold: the story of the early gold seekers. (Angus & Robertson, 6s.) Sydney, 1943.
- REED, S. R. The making of modern New Guinea: with special reference to culture contact in the Mandated Territory. (American Philosophical Society and Institute of Pacific relations, \$4) Philadelphia, 1943.

History.

- CAMBRIDGE HISTORY OF THE BRITISH EMPIRE, vol. 7, pt. 1: Australia. (Cambridge University Press, 31s. 6d.) Cambridge, 1933.
- FITZPATRICK, B. C. British imperialism and Australia, 1783-1833: an economic history of Australasia. (Allen & Unwin, 18s.) London, 1930. (New ed. printing.)
- The British Empire in Australia: an economic history, 1834-1939. (Melbourne University Press, 21s.) Melbourne, 1941. (New ed. printing.)
- HARRIS, H. I. Australia in the making. (Angus & Robertson, 4s.) Sydney, 1936.
- HISTORICAL RECORDS OF AUSTRALIA: editor, J. F. Watson (in progress). (Commonwealth Parliament Library Committee, Canberra, 12s. 6d. per vol.) Sydney, 1914 to date. (34 vols. have so far appeared. Publication has been suspended since 1925.)
- HISTORICAL STUDIES: Australia and New Zealand. (Melbourne University Press, 10s. per annum.) Melbourne, 1940 to date.
- SHANN, E. O. G. An economic history of Australia. (Cambridge University Press, 20s.) Cambridge, 1930. 2nd impression, 1938.

RECENT PUBLICATIONS.

- ALLAN, J. A. Men and manners in Australia: being a social and economic sketch history. (Cheshire, 10s. 6d.) Melbourne, 1945.
- FERGUSON, J. A. Bibliography of Australia: vol. 2, 1831-1838. (Angus & Robertson, 63s.) Sydney, 1945.
- GRENFOP, F. S. Coast of tragedy. (K. G. Murray, 8s. 6d.) Sydney, 1944.
- GREENWOOD, G. Early American-Australian relations: from the arrival of the Spaniards in America to the close of 1830. (Melbourne University Press, 10s. 6d.) Melbourne, 1944.
- INGLETON, G. C. Charting a continent: a brief memoir on the history of marine exploration and hydrographical surveying in Australian waters from the discoveries of Captain James Cook to the war activities of the Royal Australian Navy surveying service. (Angus & Robertson, 12s. 6d.) Sydney, 1944.

Military and Naval History.

- OFFICIAL HISTORY OF AUSTRALIA IN THE WAR OF 1914-18: editor, C. E. W. Bean. 12 vols. (Angus & Robertson, 21s. per vol. Vols. 8, 10, 11: 18s.) Sydney, 1921-42.
- OFFICIAL HISTORY OF THE AUSTRALIAN ARMY MEDICAL SERVICES IN THE WAR OF 1914-18: editor, Col. A. G. Butler. 3 vols. (Australian War Memorial, 21s. per vol.) Canberra, 1930-43.

RECENT PUBLICATIONS.

Official.

- AUSTRALIA:—*Army: Public relations directorate*. The Australian army at war: an official record of service in two hemispheres, 1939-1944. (The Directorate), Melbourne, 1944.
- The Jap was thrashed: an official story of the Australian soldier—first victor of the "invincible" Jap, New Guinea, 1942-3. (The Directorate), Melbourne, 1944.
- Reconquest: an official record of the Australian army's successes in the offensives against Lae, Finschhafen, Markham and Ramu Valleys, Huon Peninsula, Finisterre mountains, Rai coast, Bogadjin, Madang, Alexishafen, Karkar Island, Hansa Bay: September, 1943-June, 1944. (The Directorate), Melbourne, 1944.
- AUSTRALIA:—*Information department*. Action: official war photographs. (Government Printer) Sydney, 1944.

Other.

- ADAMS, J. H. Ships in battledress. (Currawong, 6s. 6d.) Sydney, [1945].
- BENNETT, H. G., *Lieutenant-general*. Why Singapore fell. (Angus & Robertson, 12s.) Sydney, 1944.
- BOYS Write Home, the: published for the The Australian Women's Weekly. (Consolidated Press, 2s. 9d.) Sydney, 1944.
- BREMNER, E. Bennett. Front-line airline: the story of Qantas empire airways limited. (Angus & Robertson, 12s. 6d.) Sydney, 1944.
- BROGDEN, S. Sky diggers: a tribute to the R.A.A.F. (Whitcombe & Tombs, 3s. 6d.) Melbourne [1944].
- CLIFFORD, L. E. The leader of the crocks. (Cheshire, 11s. 6d.) Melbourne, 1945.
- DAVIS, A. Soldier superb: the Australian fights in New Guinea. (F. H. Johnston, 12s. 6d.) Sydney, 1943 [1944].
- HETHERINGTON, J. A. The Australian soldier: a portrait: illust. with drawings by Russell Drysdale and official war photographs. (F. H. Johnston, 12s. 6d.) Sydney, [1944].

Military and Naval History—continued.

- HIGGINS, P. M. They speed the eagles: the story of the W.A.A.A.F. (the Women's auxiliary Australian air force.) (F. H. Johnston, 10s. 6d.) Sydney, 1943.
- JOHNSTON, G. H. New Guinea diary. (Angus & Robertson, 12s. 6d.) Sydney, 1943.
- Pacific partner. (Duell, Sloan & Pearce, \$2.50.) New York, 1944.
- JONES, T. M. and IDRIESS, I. L. The silent service: action stories of the Anzac navy. (Angus & Robertson, 10s. 6d.) Sydney, 1944.
- KERR, C. G. Tanks in the east: the story of an Australian cavalry regiment. (Oxford University Press, 12s. 6d.) Melbourne 1945.
- McGUIRE, P. and McGUIRE, F. M. The price of admiralty. (Oxford University Press, 15s.) Melbourne, 1944.
- MANT, G. You'll be sorry. (Frank Johnson, 8s. 6d.) Sydney, 1944.
- WARNER, D. A. Written in sand. (Angus & Robertson, 7s. 6d.) Sydney, 1944.
- WATERS, J. C. A. Valiant youth: the men of the R.A.A.F. (F. H. Johnston, 12s. 6d.) Sydney, 1945.
- WILMOT, C. (R. W. W. Wilmot). Tobruk: 1941: capture, siege, relief. (Angus & Robertson, 15s.) Sydney, 1944.

Biography.

BIOGRAPHICAL HANDBOOK AND RECORD OF ELECTIONS FOR THE PARLIAMENT OF THE COMMONWEALTH. (Commonwealth Parliament Library Committee, 10s. 6d.) Canberra, 1945.

(A new issue is produced for each Federal Parliament.)

WHO'S WHO IN AUSTRALIA: 12th edition: edited by J. A. Alexander. (Herald Press, 25s.) Melbourne, 1944.

RECENT PUBLICATIONS.

- BEDFORD, R. Naught to thirty-three. (Currawong, 10s. 6d.) Sydney, 1944.
- DEVANEY, J. Shaw Neilson. (Angus & Robertson, 6s.) Sydney, 1944.
- FRANKLIN M. and BAKER, K. Joseph Furphy: the legend of a man and his book. (Angus & Robertson, 10s. 6d.) Sydney, 1944.
- GREENOP, F. S. Who travels alone. (K. G. Murray, 10s. 6d.) Sydney, 1944.
- TURNBULL, C. Mulberry leaves: the story of Charles Whitehead. (Hawthorn Press, 8s. 6d.) Melbourne, 1945.

Constitution and Administration.*

AUSTRALIA:—*Law: Statutes.* The acts of the Parliament of the Commonwealth of Australia passed from 1901 to 1935 and in force on 1st January, 1936: to which is prefixed the Commonwealth of Australia constitution act. 4 vols. and supplements. (Government Printer, £6 6s., supplements, 10s. p.a.) Canberra, 1936.

AUSTRALIA:—*Royal Commission on the Constitution of the Commonwealth.* Report. (Government Printer, 10s. 6d.) Canberra, 1929.

AUSTRALIAN DIGEST, THE, 1825-1933 AND SUPPLEMENTS 1934-45: being a digest of the reported decisions of the Australian courts and of Australian appeals to the Privy Council; with table of cases: editors, B. Sugerman and others: 32 vols. (Law Book Co., 60s. per vol.) Sydney, 1934 to 1945. Annual supplements, 21s.

BRENNAN, T. C. Interpreting the constitution: a politico-legal essay. (Melbourne University Press, 21s.) Melbourne, 1935.

COMMONWEALTH LAW REPORTS. (Law Book Co., 52s. 6d. per vol.) Sydney, 1903 to date.

KERR, D. The law of the Australian constitution. (Law Book Co., 40s.) Sydney, 1925.

KNOWLES, Sir GEORGE S. The Commonwealth of Australia constitution act (as altered to 1st July, 1936), and the acts altering the constitution; with notes, tables, indexes and appendices. (Government Printer, 15s.) Canberra, 1937.

LAW BOOK COMPANY'S WAR LEGISLATION SERVICE: containing the emergency war legislation of the Commonwealth of Australia with rules, proclamations, etc., thereunder, with articles and notes of a practical nature. General editor: J. D. Holmes. (Law Book Co., 42s. per annum.) Sydney, 1939 to date.

PARKER, R. S. Public service recruitment in Australia. (Melbourne University Press, 10s.) Melbourne, 1942.

WOOD, F. L. The constitutional development of Australia. (Harrap, 10s. 6d.) Sydney, 1933.

WYNES, W. A. Legislative and executive powers in Australia: being a treatise on the legislative and executive powers of the Commonwealth and States of Australia under the Commonwealth of Australia constitution act. (Law Book Co., 32s. 6d.) Sydney, 1936.

RECENT PUBLICATIONS.**Official.**

AUSTRALIA:—*Laws, Statutes, etc.* Manual of National security legislation (fifth edition): being the National security act 1939-1940 and regulations and certain orders and rules made thereunder and in force on the 1st August, 1944. . . . 2 v. (Government Printer, 13s. 6d.) Canberra, 1944.

AUSTRALIA:—*Prime Minister's Department.* The federal guide: a handbook of the organization and functions of Commonwealth government departments and special war-time authorities. January, 1944. (Government Printer.) Canberra, 1944.

AUSTRALIA:—*War Organization of industry department.* W.O.I.: the Department of war organization of industry: what it is and what it does. (Government Printer.) Melbourne, 1944.

BLAND, F. A., ed. Government in Australia: selected readings. (Government Printer, 25s.) Sydney, 1944.

EVATT, H. V. Post-war reconstruction: temporary alterations of the constitution: notes on the fourteen powers and the three safeguards. (Government Printer.) Canberra, 1944.

Other.

BARRY, J. V. C. Wider powers for greater freedom. (Rawsons Book Shop, 6d.) Melbourne, 1944.

CONSTITUTIONAL revision in Australia: by David Maughan [and others]. (Australasian Publishing Co., 4s.) Sydney, 1944.

* It should be noted that several important books on this subject are out of print, and have therefore not been included.

Political History and International Relations.

- AUSTRALIAN QUARTERLY, THE: a quarterly review of Australian affairs. (2s. per issue.) Sydney, 1929 to date.
- CURRENT NOTES ON INTERNATIONAL AFFAIRS: [fortnightly]. (Department of External Affairs.) Canberra, 1936 to date.
- CURRENT PROBLEMS: [monthly]. (C.P. Publishing Co., 10s. 6d. p.a.) Sydney, 1931 to date.
- EVATT, H. V. Australian labour leader: the story of W. A. Holman and the labour movement: 2nd ed. (Angus & Robertson, 8s. 6d.) Sydney, 1942.
- NATION BUILDING IN AUSTRALIA: the life and work of Sir Littleton Ernest Groom: [by L. F. Fitzhardinge and others]. (Angus & Robertson, 12s. 6d.) Sydney, 1941.
- SHEPHERD, J. Australia's interests and policies in the far east. (Institute of Pacific Relations, 2s.) New York, 1940.
- SMITH, A. N. Thirty years: The Commonwealth of Australia, 1901-1931. (Brown, Prior 12s. 6d.) Melbourne, 1933.

RECENT PUBLICATIONS.

Official.

- AUSTRALIA:—*Parliament*. Documents relating to Lend-lease and Reciprocal lend-lease arrangements between the governments of the Commonwealth of Australia and the United States of America. (Government Printer, 6d.) Canberra, 1943.

Other.

- DOCKRILL, G. Scribblers and statesmen: intro. by the Rt. hon. W. M. Hughes. (Bread & Cheese Club, 21s.) [Melbourne, 1944].
- DEAKIN, A. The federal story: the inner history of the federal cause: foreword by the Rt. hon. W. A. Watt: ed. by Herbert Brookes. (Robertson & Mullens, 12s. 6d.) Melbourne, 1944.
- EVATT, H. V. Foreign policy of Australia: speeches. (Angus & Robertson, 10s. 6d.) Sydney, 1945.
- PENTON, B. Advance Australia—where? (Cassell & Co., 9s.) Melbourne, 1943.
- PRICE, A. G. Australia comes of age: a study of growth to nationhood and of external relations. (Georgian House, 4s. 6d.) Melbourne, 1945.

Economic and Social Conditions.

- AUSTRALIAN STANDARDS OF LIVING: studies by F. W. Eggleston and others. (Melbourne University Press, 10s.) Melbourne, 1939.
- COPLAND, D. B. The Australian economy: simple economic studies: 4th ed. (Angus & Robertson, 6s.) Sydney, 1941. (New ed. printing.)
- ECONOMIC RECORD, THE: the journal of the Economic society of Australia and New Zealand. (Melbourne University Press, 10s. per annum.) Melbourne, 1925 to date.

RECENT PUBLICATIONS.

Official.

- AUSTRALIA:—*Commonwealth council for national fitness*. Community centres: by K. M. Gordon. (Health Department.) Canberra, 1943.
- AUSTRALIA:—*Commonwealth housing commission*. Final report, 25th August, 1944. (Department of Post-war Reconstruction, 7s. 6d.) Canberra, 1945.
- AUSTRALIA:—*Parliament*: Joint Committee on social security. First to eighth interim reports. (Government Printer, 9s. 2d.) Canberra, 1941-45.
- AUSTRALIAN BROADCASTING COMMISSION. The community can do it: make a plan. (The Commission, 2s.) Sydney, 1945.

Other.

- AUSTRALIA'S post-war economy: by L. G. Melville [and others]: papers read at the eleventh summer school of the Australian Institute of political science, held in Sydney . . . 1945. (Australasian Publishing Co., 7s. 6d.) Sydney, 1945.
- BARNETT, F. O., BURT, W. O. and HEATH, F. We must go on: a study in planned reconstruction and housing. (Book Depot, 6s.) Melbourne, 1944.
- BENNING, W. Homes in the sun: the past present and future of Australian housing. (Nesbit, 12s. 6d.) Sydney, 1945.
- CAMPBELL, D. A. S., ed. Post-war reconstruction in Australia: by R. G. Menzies and others: and a paper "A future for international law": by Sir John Morris. (Australasian Publishing Co. in conjunction with Australian Institute of Political Science, 7s. 6d.) Sydney, 1944.
- COOMBS, H. C. Problems of a high employment economy. (University of Adelaide.) Adelaide, 1944.
- COUNCIL of social service of New South Wales. Report on housing by the Housing policy committee. (The Council, 2s. 6d.) Sydney, 1944.
- MCINTYRE, A. J. and MCINTYRE, J. J. Country towns of Victoria: a social survey. (Melbourne University Press, 10s. 6d.) Melbourne, 1944.
- SHAW, A. G. L. The economic development of Australia. (Longmans, 7s.) Melbourne, 1944.
- WALKER, Rev. A. E. Coaltown: a social survey of Cessnock. (Melbourne University Press, 2s. 6d.) Melbourne, 1945.

Industries, Resources and Trade.

- AUSTRALIA:—*Parliament*: Joint Committee on rural industries. First to fifth progress reports. (Government Printer, 9d., 1s., 9d., 3d., 1s.) Canberra, 1941-42. (P.P. 41, 60, 75, 78, 86 of 1940-43.)
- AUSTRALIA:—*Royal Commission on the wheat, flour and bread industries*. Second to fifth reports. (Government Printer, 28s. 4d.) Canberra, 1935-36.
- AUSTRALIA TO-DAY: special number of the Australian traveller. (United Commercial Travellers Association of Australia, 2s. per issue.) Melbourne, 1905 to date.
- FOENANDER, O. de R. War-time labour developments in Australia. (Melbourne University Press, 17s. 6d.) Melbourne, 1943.
- MAULDON, F. R. E. The economics of Australian coal. (Melbourne University Press, 10s. 6d.) Melbourne, 1929.
- WOOL REVIEW: [annual]. (National Council of Wool Selling Brokers of Australia.) Melbourne, 1938 to date.

Industries, Resources and Trade—continued.

RECENT PUBLICATIONS.

Official.

ALLIED WORKS COUNCIL. The story of the graving dock, Sydney. (A. E. Keating, *gratis*) Melbourne, 1945.

AUSTRALIA:—*Rural reconstruction commission*. First to fourth reports. Department of Post-War Reconstruction, *gratis*. Canberra, 1944.

See also Commonwealth arbitration reports and Reports of proceedings of the State arbitration courts.

Other.

AUSTIN, H. B. The merino: past, present and probable. (Grahame Book Co., 30s.) Sydney, 1943.

COWLEY, C. E. Classing the clip: a handbook on wool-classing: 4th ed. (Angus & Robertson, 12s. 6d.) Sydney, 1945.

IDRIESS, J. L. Onward Australia: developing a continent. (Angus & Robertson, 4s.) Sydney, 1944.

JENSEN, J. K. The development of munitions production in Australia: address. (Victorian Chamber of Manufactures.) Melbourne, 1943.

MATHER, W. H. Wool: Australia's great awakening. (Angus & Robertson, 2s. 6d.) Sydney, 1944.

PEARSE, E. H. Sheep, farm and station management: 5th ed. (Pastoral Review, 17s. 6d.) Melbourne, [1941].

PICK, J. H. and ALLDIS, V. B. Australia's dying heart: soil erosion and station management in the inland: 2nd ed. (Melbourne University Press, 3s.) Melbourne, 1944.

ROBERTSON, H. S. Now blame the farmer. (Angus & Robertson, 2s. 9d.) Sydney, 1945. (Author of the Robertson Wheat Stabilization Scheme.)

TURNBULL, C. Wings of tomorrow. (F. H. Johnston, 7s. 6d.) Sydney, 1945.

YORSTON, R. K., *compiler*. Australian commercial dictionary: being a selection of accounting, business and legal words and phrases. (Law Book Co. of Australasia, 18s.) Sydney, 1945.

Natural History.

AUSTRALIA:—*Meteorology, Bureau of*. Climatological atlas of Australia. (The Bureau, 10s. 6d.) Melbourne, 1940.

CAYLEY, N. W. What bird is that? a guide to the birds of Australia. (Angus & Robertson, 12s. 6d.) Sydney, 1931. (New ed. printing.)

DAVID, Sir T. W. E. Explanatory notes to accompany a new geological map of the Commonwealth of Australia. (Angus & Robertson, 6s.) Sydney, 1932.

HARRIS, T. Y. Wild flowers of Australia. (Angus & Robertson, 7s. 6d.) Sydney, 1938. (New ed. printing.)

LEACH, J. A. An Australian bird book: a complete guide to identification of the Australian species: revised and edited by C. Barrett: 8th ed. (Whitcombe & Tombs, 8s. 6d.) Melbourne, 1939.

MCKEOWN, K. C. Australian insects: an introductory handbook. (Royal Zoological Society of N.S.W., 12s. 6d.) Sydney, 1942.

TROUGHTON, E. LE G. Furred animals of Australia. (Angus & Robertson, 14s. 6d.) Sydney, 1941. (New ed. printing.)

WHITLEY, G. P. The fishes of Australia, pt. 1: the sharks, rays, devil-fish and other primitive fishes of Australia and New Zealand. (Royal Zoological Society of N.S.W., 7s. 6d.) Sydney, 1940.

RECENT PUBLICATIONS.

Official.

BLACK, J. M. Flora of South Australia: pt. 1: Cyatheaceae-Orchidaceae. (British Science Guild, S.A.) Adelaide, 1943.

RUPP, Rev. H. M. R. The orchids of New South Wales. (National Herbarium, 9s.) Sydney, 1943.

Other.

BARRETT, C. L. Australian bird life. (Oxford University Press, 9s. 6d.) Melbourne, 1945.

Australian wild life. (Georgian House, 10s. 6d.) Melbourne, 1943.

FLEAY, D. H. We breed the platypus. (Robertson and Mullens, 2s. 6d.) Melbourne, 1944.

HARRIS, T. Y. Nature problems: a book of natural history for Australians. (Brooks, 12s. 6d.) Sydney, 1945.

RUSSELL, A. Bush ways: a bush-lover's wanderings on plain and range in central and eastern Australia. (Australasian Publishing Co., 9s. 6d.) Sydney, 1945.

Aborigines.

BATES, Daisy, *Mrs*. The passing of the aborigines. (John Murray, 12s. 6d.) Melbourne, 1943.

ELKIN, Rev. A. P. The Australian aborigines. (Angus & Robertson, 8s. 6d.) Sydney, 1938.

FOXGROFT, E. J. B. Australian native policy: its history especially in Victoria. (Melbourne University Press, 10s.) Melbourne, 1941.

KABERRY, P. M. Aboriginal women. (Routledge, 16s. 6d.) London, 1939.

NEEDHAM, Rev. J. S. White and black in Australia. (S.P.C.K., 3s. 6d. and 2s. 6d.) London, 1935.

OCEANIA: a journal devoted to the study of the native peoples of Australia, New Guinea and the islands of the Pacific Ocean. [Quarterly.] (Australian National Research Council, 20s. *per annum*.) Sydney, 1930 to date.

WARNER, W. L. A black civilization: a social study of an Australian tribe. (Harper, \$5.) New York, 1937.

See also the Annual Reports of the Administrator of the Northern Territory and of the Aboriginal Departments in Queensland, South Australia and Western Australia.

RECENT PUBLICATIONS.

BLACK, R. L. Aboriginal art galleries of western New South Wales. (Bread and Cheese Club, 6s. 6d.) Melbourne, 1943.

The bora ground: being a continuation of a series on the customs of the aborigines of the Darling river valley and of central New South Wales. (Author, 7s. 6d.) [Leeton, N.S.W.], 1944.

ELKIN, Rev. A. P. Citizenship for the aborigines: a national aboriginal policy. (Australasian Publishing Co., 3s.) Sydney, 1944.

Education

- AUSTRALIA:—*Parliament: Joint Committee on wireless broadcasting*. Report. (Government Printer, 5s.) Canberra, 1942. (P.P. 73 of 1940-43.)
- COLE, P. R., *editor*. The rural school in Australia. (Melbourne University Press, 10s.) Melbourne, 1937.
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1939.

2nd January.—Owing to the refusal of waterside workers to load pig-iron for Japan 4,000 steel workers at Port Kembla were thrown out of employment.

29th January.—Arrival of technical members of British Air Mission to investigate possibilities of further development of aircraft manufacture in Australia.

17th March.—Council for Scientific and Industrial Research directed to make comprehensive survey of the raw materials of industry; to ascertain what imports were vital to continuance of national effort; and to devise means of coping with the non-arrival of vital raw materials from overseas.

24th March.—Prime Minister announced that British and Commonwealth Governments had adopted the general recommendations of the British Air Mission regarding the manufacture of military aircraft in Australia; plant and equipment to start the industry estimated to cost £1,000,000.

29th March.—Revising its earlier decision, the Government decided to introduce immediately a compulsory register of man-power.

4th May.—The proposed new industry for the manufacture of tinplate in Australia would probably be established by Broken Hill Pty. Co. Ltd. at Whyalla (South Australia) at a cost of £2,500,000 and would give employment to 1,000 men.

9th May.—First cargo of steel—8,200 tons—sent from Australia to England left Newcastle.

24th May.—The Minister for Supply announced decision to proceed immediately with a compulsory register of productive capacity and resources of industries of defence significance.

8th June.—Government accepted amendment to National Register Bill to provide for register of private wealth; all persons possessing assets of £500 or more to be required to furnish returns.

22nd June.—Loan Council agreed to loans of £41,000,000 for Commonwealth and States.

2nd July.—It was reported that more than twenty ships had been chartered to carry to Britain cargoes of Australian steel totalling between 150,000 and 170,000 tons.

15th August.—Commonwealth Arbitration Court decided that in general the standard working week for Australian industry should be 44 hours.

26th August.—Commonwealth Government assumed wide powers to safeguard national interests.

28th August.—Commonwealth control of oversea exchange transactions and export of money.

29th August.—Commonwealth took over a number of Australian ships.

3rd September.—Australia declared war on Germany.

4th September.—Board set up for the control of shipping. Captain G. D. Williams appointed Controller of Shipping.

5th September.—Britain bought Australia's wool clip and surplus food products.

7th to 8th September.—Action taken for the control of prices to prevent profiteering. Professor D. B. Copland appointed Controller of Prices to be assisted by two assessors. Proclamation issued enumerating eighteen groups of commodities immediately subject to price control at rates obtaining on 31st August; list to be extended later as required.

Temporary budget presented providing for increases in income tax, sales tax, customs and excise duties, including spirits, beer and petrol, to raise £5,910,000. Expenditure for 1939-40 estimated at £101,916,000 and revenue £101,940,000.

9th September.—National Security and Trading with Enemy Acts passed.

13th September.—Status of official representative in Canada raised to that of High Commissioner. The Canadian Government announced intention of appointing a High Commissioner in Australia.

Australian wheat crop during war period acquired by Commonwealth Government and marketed through a compulsory Federal Wheat Pool.

23rd September.—Commonwealth control of exports.

29th September.—Regulations issued to create War-time Price-fixing Organization, conferring virtually unlimited powers on Commissioner of Prices, who is enabled to compel sale of any goods in trade in Australia in the reasonable and ordinary course of trade.

3rd October.—Under the agreement with the British Government, Australian growers will receive 13.4375d. per lb. for current wool clip and also one-half of profit on resales by Britain.

5th October.—Commonwealth Emergency Planning and Organization Regulations gazetted, requiring sixteen separate classes of industries engaged in manufacture of wide range of commodities to furnish returns of their manufacturing operations.

Commonwealth Government assumed wide powers for marshalling of oversea credit of Australia for national purposes.

21st October.—Compulsory military training for home defence to be introduced from January, 1940.

1st November.—National Security Regulations issued empowering Commonwealth Government virtually to commandeer services of Australian factories.

17th November.—It was announced that between 8,000 and 10,000 men will probably be engaged in the manufacture of military aircraft in Australia during 1941.

30th November.—Revised Commonwealth Budget for 1939-40 increased defence expenditure from £33,137,000 to £62,014,000. No increase in taxation.

1st December.—Internal loan of £12,000,000, arranged by the Commonwealth Bank in conjunction with the trading banks, interest 3½ per cent., issued at par; £4,000,000 repayable in each of the years 1942-44, for purposes of defence and public works.

Introduction of Import Licencing Regulation to control exports from non-sterling countries.

6th December.—Commonwealth Government decided to provide subsidy up to £1,500,000 to encourage the production of complete motor cars in Australia.

15th December.—Prime Minister stated that first objective of Australia's contribution to the Empire Air Scheme would be the training of 26,000 men, including 10,400 pilots, at an estimated cost of £A50,000,000.

19th December.—The Commonwealth Arbitration Court reduced by one month the "lag" of its automatic adjustments of wages—to operate from first pay-period in a February, May, August or November.

22nd December.—Announced that company with nominal capital of £1,000,000 to be formed by Australian Consolidated Industries Ltd. to manufacture motor engines and chassis in Australia.

30th December.—Plans announced for a new £1,000,000 factory in Sydney for the manufacture of aeroplane engines.

1940.

4th January.—Production of crude oil at Glen Davis, New South Wales.

8th January.—Right Hon. R. G. Casey, Minister for Supply and Development, appointed first Envoy Extraordinary and Minister Plenipotentiary to the United States of America.

9th January.—Mr. C. E. Gauss, American Consul-General at Shanghai, appointed first Envoy Extraordinary and Minister Plenipotentiary of the United States of America to Australia.

11th January.—Britain agreed to purchase large quantity of Australian wheat.

15th January.—Special committee appointed to direct all shipping between Australia and Great Britain.

24th January.—Commonwealth Bank and private trading banks reduced rates on fixed deposits by 5s. per cent.

31st January.—Agreement with Australian Consolidated Industries Ltd. for manufacture of motor cars in Australia suspended by Commonwealth Government.

7th February.—Recruiting for reinforcements for Second Australian Imperial Force to begin on 1st March, at rate of about 2,400 per month.

29th February.—Appointment of Aircraft Production Commission to supervise local production and maintenance of aircraft required in Australia for Empire Air Scheme.

6th March.—Additional troops to be recruited in Australia for service abroad; Second Australian Imperial Force to consist of existing Sixth Division, a Seventh Division and Corps troops totalling in all 48,000 men; further 42,000 reinforcements to be recruited before June, 1941; Army Co-operation Squadron of Royal Australian Air Force also to go abroad.

11th March.—General coal strike began after failure of proposal that colliery owners or mining unions should apply to Commonwealth Court of Conciliation and Arbitration for compulsory conference.

14th March.—New Commonwealth Ministry sworn in; Country Party represented by three Ministers and two Assistant Ministers.

15th March.—Internal loan of £18,165,000, 3½ per cent. for five years, or 3½ per cent. for ten to sixteen years, issued at par, for defence and public works.

18th March.—Sale of war savings certificates begun.

29th March.—New regulations governing private investment of money and interest rates.

30th March.—Further restrictions on imports from non-sterling countries; import prohibited of certain goods—the annual import value of the goods prohibited aggregating more than £2,000,000.

11th April.—Commonwealth Government ordered immediate compulsory census of coal stocks throughout Australia.

1st May.—Commonwealth Bank reduced interest rate on Treasury Bills from 1¼ to 1½ per cent.

2nd May.—Commonwealth Treasurer announced proposals to increase taxation revenue by £20,000,000 in next financial year.

3rd May.—Regulations issued empowering Commonwealth Government to re-open coal-mines and protect all free labour engaged.

9th May.—Commonwealth Government decided to re-open coal-mines; volunteer labour to be sought.

10th May.—Gas restrictions imposed in Sydney owing to coal strike.

13th May.—New South Wales Premier signed proclamation calling for volunteer labour for coal-mines. Age-limit for Australian Imperial Force volunteers increased from 35 to 40 years.

20th May.—Coal strike ended; dispute to be referred immediately to Commonwealth Court of Conciliation and Arbitration.

22nd May.—Plans for acceleration of war effort announced by Prime Minister; a third Australian Imperial Force division for service abroad to be raised; Brigadier-General H. W. Lloyd appointed Director-General of Recruiting; Mr. Essington Lewis appointed Director-General of Munition Supplies; naval graving dock for capital ships to be constructed at Sydney at cost of nearly £3,000,000.

28th May.—Commonwealth Bank and private trading banks reduced interest rates on fixed deposits by ¼ per cent. Newsprint rationing plan announced. Loan Council appointed a Co-ordinator-General of Works to make recommendations to the Loan Council on the relative merits of civil loan works.

31st May.—Commonwealth Parliament passed Bill concluding agreement between Government and Australian Consolidated Industries Ltd. for manufacture of motor cars in Australia, but clause granting monopoly to company deleted.

6th June.—Commonwealth Government to spend £2,032,000 on training aircraft and bomber 'planes; order for 500 trainers placed in Australia.

10th June.—Italy declared war on Allies.

11th June.—Announcement of petrol rationing scheme to effect reduction of one-third of petrol consumption.

14th June.—Internal war loan of £20,582,000. 2½ per cent. for five years, or 3¼ per cent. for ten to sixteen years.

21st June.—National Security Act amended giving Commonwealth Ministry widest powers ever held by an Australian Government.

23rd June.—Mass production of anti-tank guns planned by Commonwealth Government. Importance to the war effort of salvage of all waste metals and paper stressed by Minister for Supply.

25th June.—Arrival of New Zealand Minister for Supply to discuss industrial co-operation between Australia and New Zealand.

26th June.—Plans prepared by Ministry of Munitions for expenditure of £50,000,000 to expand munitions production.

28th June.—Further non-sterling import restrictions on goods aggregating in value £2,650,000.

6th July.—Prime Minister stated 150,000 persons will be employed directly and indirectly in making munitions within twelve months.

8th July.—Commonwealth Treasurer announced surplus of £2,928,000 for year ended 30th June, 1940.

12th July.—San Francisco-Auckland air service inaugurated.

19th July.—Australian Imperial Force strength in Australia fixed at 80,000; recruiting temporarily interrupted. Imports from Netherlands East Indies to be given similar treatment to that given to countries within sterling area.

26th July.—Prime Minister announced establishment of Trade Unions Advisory Panel; invited A.C.T.U. to be represented; six other unions joined panel.

31st July.—Proclamation issued for the calling up of four new age-groups (20, 22, 23 and 24) of men in Australia for military training under plan to maintain home defence force of 250,000.

1st August.—Introduction of compulsory system of tax collection by instalments announced by Commonwealth Treasurer.

2nd August.—War Cabinet plans to expand production of power alcohol; committee to be appointed to explore possibilities of producing fuel from molasses and wheat.

9th August.—Australian motor-car importers agreed to cease importing motor chassis for nine months.

14th August.—Loan Council approved of gross loan works expenditure in 1940-41 of £19,729,000, compared with £23,267,000 in 1939-40.

16th August.—Amended petrol rationing proposals announced.

18th August.—Sir John Latham appointed first Envoy Extraordinary and Minister Plenipotentiary to Japan.

20th August.—Commonwealth Treasurer estimated cost of war to be £177,000,000 for 1940-41. Unemployed number lowest on record.

26th August.—First Australian petrol produced on commercial scale distilled.

3rd September.—Extension of Empire Air Training Scheme announced by Minister for Air; another 1,200 aeroplanes to be acquired.

18th September.—Australian price of gold reached record peak at £10 14s. a fine ounce.

21st September.—Commonwealth elections held.

1st October.—Petrol rationing began.

9th October.—Amendment to Commonwealth Investment Control Regulations.

10th October.—Arrangements made for storage in United States of America of 250,000,000 lb. of Australian wool as strategic reserve to be held by British Government.

11th October.—Commonwealth Government loan of £1,000,000 to States for drought relief.

22nd October.—Australian political leaders agreed on establishment of National Advisory War Council.

28th October.—Ministry formed, composed of members of United Australia and Country Parties—Right Honorable R. G. Menzies, Prime Minister.

6th November.—Departure of Sir John Latham, Envoy Extraordinary and Minister Plenipotentiary for Japan.

8th November.—Sinking of British oversea vessel in Bass Strait, attributed to enemy mine; Bass Strait temporarily closed to shipping.

Wheat stabilization scheme announced; guaranteed price of 3s. 6d. per bushel f.o.r., ports, bagged wheat, and licensing of growers to ensure rigid control over production. Commonwealth Government approved loan of £2,770,000 for drought relief.

Action taken by Commonwealth Government to control by licence release of dutiable goods in order to prevent abnormal clearances in anticipation of higher duties.

18th November.—Revised wheat stabilization plan providing for payment of 3s. 10d. per bushel f.o.r., ports, bagged wheat.

21st November.—Commonwealth Treasurer introduced record war-time Budget, providing for increases in direct and indirect taxation. For 1940-41 revenue estimated at £150,100,000, expenditure, omitting War Services, at £84,853,000, and War Services expenditure charged to the Budget at £65,220,000, making total expenditure of £150,073,000. In addition loan expenditure estimated at £119,731,000, including £117,231,000 for defence and war purposes.

5th December.—Commonwealth Government effected compromise with Labour Party on Budget proposals.

Building control regulations—approval of Commonwealth Treasurer necessary for erection of new buildings and alterations costing over £5,000.

11th December.—Revised scheme for applying War-time Company Tax accepted by Commonwealth Government.

13th December.—Ten more age-groups liable for military service in Australia; all single men and widowers without children, aged 19 years and in the 25 to 33 age-groups (inclusive) affected.

14th December.—Internal war and works loan of £28,505,000, 2½ per cent. for five years and 3½ per cent. for ten to sixteen years.

16th December.—Prime Minister announced establishment of Central Reference Board for conciliation in coal industry.

31st December.—Broken Hill Pty. Co. Ltd. applied to Commonwealth Treasurer for permission to raise £2,500,000 by issue of 2,500,000 shares at par; extra capital to be used for shipbuilding. Issue made during January, 1941.

1941.

8th January.—Decision to form Australian Armoured Corps of 10,000 men.

22nd January.—Royal Commission in New South Wales recommended compulsory retirement of coal and shale miners at 60 years on pension to be provided—one-half by mine owners, one-quarter by mine workers and one-quarter by the State.

30th January.—Commonwealth Shipping Control Board appointed.

1st February.—At Premiers' Conference, Acting Prime Minister submitted proposals for uniform income taxation.

7th February.—Applications for increase in basic wage refused by Commonwealth Arbitration Court. Quota for motor-car imports reduced.

8th February.—United States Congress passed "Lend-Lease" Bill.

13th February.—Further restriction of petrol from 1st April. Appointment of Commonwealth Coal Board.

14th February.—Fall in prices on Australian Stock Exchange.

20th February.—Announcement that militia troops would spend alternative periods of 90 days in and 90 days out of camp to ensure that 125,000 troops would be under arms for home defence. Commonwealth Government to provide £6,000,000 for merchant shipbuilding.

22nd February.—Newsprint production began at Boyer, Tasmania.

28th February.—Government war risk insurance of ships on Australian register begun.

14th March.—Japanese Envoy, Mr. Tashouo Kawai, presented credentials to the Governor-General, Canberra.

19th March.—Further revision of petrol ration.

20th March.—Commonwealth Government to plan three months emergency storage of household goods costing approximately £6,000,000.

21st March.—War Service Moratorium Regulations revised.

25th March.—Commonwealth Government fixed rents at rates ruling on 31st December, 1940, in States (Victoria, Queensland and Tasmania) where Fair Rents Boards were operating.

4th April.—Government plan announced for the stabilization of mutton and lamb industry by acquisition and encouragement of home consumption. British Government agreed to purchase exportable surplus of season's canned fruits.

22nd April.—United Kingdom Government contract meat purchases from Australia for year ended 30th September, 1941 restored to 198,000 tons after reduction to 144,000 tons in January.

2nd May.—Reduced petrol ration announced to operate from 1st June.

16th May.—Closing of Commonwealth £13,500,000 Conversion Loan in London; £8,200,000 converted, balance to be redeemed on 1st October.

19th May.—Commonwealth Loan of £35,000,000, 2½ per cent. maturing 1946, or 3¼ per cent. maturing 1950–56, issued at par, oversubscribed by £871,000.

27th May.—New regulation restricting the transfer of skilled workers from one job to another.

9th June.—Five-year merchant shipbuilding plan announced. Sixty ships to be built of 5,000 tons gross in four States: South Australia, New South Wales, Queensland and Victoria.

13th June.—Extension of Moratorium Regulations protecting members of the forces and their dependants.

18th June.—Second advance of 4d. a bushel on 1940–41 season's wheat, making total advance 3s. 4d. for bagged and 3s. 7½d. for bulk both less freight, also a final advance of 1½d. bushel on 1939–40 pool, making the total advanced 3s. 6½d. for bagged and 3s. 4½d. for bulk wheat.

19th June.—Newsprint rationed to 55 per cent. of pre-war level.

26th June.—Prime Minister announced plans for more effective war effort with re-organization of Commonwealth Cabinet and administration; Cabinet divided into a War Cabinet and Economic and Industrial Committee; five new Departments formed—Aircraft Production, Transport, War Organization of Industry, Home Security, and External Territories; seven Parliamentary Committees appointed—War Expenditure, Social Security, Profits, Man-power and Resources, Broadcasting, Taxation and Rural Industries.

27th June.—Commonwealth Government's proposal for uniform taxation rejected by State Governments.

30th June.—Further restrictions on imports from non-sterling countries.

1st July.—Commonwealth Child Endowment commenced. Restrictions on imports from sterling countries.

4th July.—Capital Issues Regulations restricting the sale of land.

15th July.—Government control of imports, storage and distribution of petrol.

21st July.—Visit of Australian delegation to the United States to discuss trade proposals.

26th July.—Application of sanctions against Japan; Japanese balances in Australia "frozen" under exchange control regulations.

7th August.—Division of Import Procurement established in Sydney in connexion with lend-lease goods from the United States of America.

9th August.—Loan Council decision to reduce States' loan quotas from £24,000,000 to £20,000,000.

26th August.—War-workers Housing Trust established.

28th August.—Honorable A. Fadden succeeded Right Honorable R. G. Menzies as Prime Minister. Sir Frederic Eggleston left Australia as first Australian Minister to China.

17th September.—Commonwealth Grants Commission recommended grants for 1941–42; South Australia £1,150,000, Western Australia £630,000 and Tasmania £520,000.

22nd September.—Commonwealth Bank and trading banks reduced by 5s. per cent., all fixed deposit rates excepting for three monthly period.

25th September.—Commonwealth Budget for 1941-42 introduced by Mr. Fadden provided for total expenditure of £322,000,000 including £217,000,000 for war purposes. Revenue estimated at £170,000,000 including £7,000,000 from increased taxation and postal charges; expenditure on non-war services estimated at £102,000,000. Loan expenditure estimated at £152,000,000 of which £25,000,000 was compulsory loan, designed to make the total levy on incomes uniform in the States.

3rd October.—Fadden Government defeated on Budget.

7th October.—Mr. Curtin formed Labour Ministry.

29th October.—Revised Budget introduced by Mr. Chifley provided for total expenditure of £325,000,000 including £221,000,000 for war purposes. Revenue estimated at £186,000,000 including £22,000,000 from increased taxation and postal charges. Expenditure on non-war services estimated at £103,480,000, loan expenditure at £139,000,000; Service pay and invalid and old-age pensions increased, income tax increased (on incomes over £1,500), increases in war-time company tax, sales tax, customs and excise duties and a gift duty introduced.

Regulations announced for war-time banking control—All trading banks to be licensed and all surplus investible funds to be lodged with Commonwealth Bank, profits to be limited and full statements of accounts to be furnished to Commonwealth Bank.

15th November.—£100,000,000 loan filled: £65,984,000 converted out of £70,000,000; Cash amounted to £34,159,000.

27th November.—Loss of £1,500,000 on apple and pear acquisition scheme for 1941 season.

28th November.—Rent control regulations provided that no dwelling house let at less than £4 4s. per week be at rental greater than that paid on 31st August, 1939; evictions subject to approval of Fair Rents Court.

5th December.—First advance on 1941-42 season's wheat crop announced; 3s. bushel for bagged and 2s. 10d. for bulk, both less freight.

7th December.—War in the Pacific launched by Japanese attack upon the American Naval Base at Pearl Harbour, Hawaii, followed by declaration of war by Japan upon Great Britain and the United States of America.

8th December.—All Japanese nationals in Australia handed over to military authorities for internment. Total prohibition of imports of 643 items from all sterling areas excepting New Zealand and British and French Pacific Islands. Transport services placed on emergency basis.

9th December.—Proclamation issued declaring Australia at war with the Japanese Empire as from 5 p.m., 8th December.

11th December.—Late shopping nights abolished.

16th December.—War-tax estimated to yield £20,000,000 in full year imposed at flat rate of 1s. in £ on income of £300 per annum and over, falling to 6d. in £ on income of £156 per annum. Company tax increased by 1s. in £.

19th December.—Postponement of State public works not essential to war effort pending report by Co-ordinator-General of Works.

20th December.—Compulsory scheme of property insurance against war damage announced.

22nd December.—Commonwealth authority to control all forms of transport.

27th December.—Industrial Relations Council, established to advise on industrial matters, to consist of eight employers' and eight employees' representatives with independent chairman.

1942.

1st January.—Daylight saving introduced. Clocks advanced by one hour from 2 a.m.

3rd January.—Mr. L. R. McGregor, Commonwealth Trade Commissioner in United States, appointed Director-General of War Supplies Procurement in United States.

6th January.—Director-General of Aircraft Production appointed.

8th January.—Regulations issued providing for compensation for war injuries sustained.

21st January.—Mr. W. C. Wurth appointed Director-General of Man Power.

28th January.—Formation of Waterside Employment Committees at various ports. Regulations amended to prohibit erection of new buildings to be used as dwellings and situated within 25 miles of G.P.O., Sydney and Melbourne.

31st January.—Gazetted of Man Power Regulations providing for the direction and control of all persons in employment. Creation of Directorate-General of Man Power and establishment of National Service Offices.

Regulations gazetted providing for the restriction of the number of University students to be enrolled.

Loan programme reduced to £12,912,000 for year 1941-42.

16th February.—Announcement of fall of Singapore.

17th February.—Federal Government ordered complete mobilization of all Australia's resources—human and material.

Share trading on Stock Exchanges ceased.

20th February.—Regulations gazetted permitting mobilization of services and property.

National Security Regulations gazetted prohibiting transfer of certain property, granting Commonwealth Bank power to fix maximum rates of interest, fixing rates of wages and limiting profits.

23rd February.—Regulations gazetted under National Security Act for introduction of insurance scheme covering war damage; the scheme to cover all property in Australian territory against air raid, enemy attacks on land or damage caused by counter measures including a scorched earth policy.

26th February.—Allied Works Council set up to carry out works for allied forces in Australia. Hon. E. G. Theodore appointed Director-General.

2nd March.—National Security Regulations gazetted permitting employment of women on unskilled work, usually performed by men, in the production of munitions and aircraft.

6th March.—Proclamation issued calling for registration of all men in defence classes IV. Age 35-45—Married men with children and V. Age 45-60—All men.

9th March.—National Security Regulations gazetted providing for Controller of Minerals Production to operate, control and direct the production of minerals.

10th March.—First Liberty £35,000,000 War Loan oversubscribed by £13,331,000.

11th March.—Regulations gazetted providing for registration of all civilians over 16 years of age on 15th March, 1942, and the issue of identity cards.

Resumption of trading in shares on Australian Stock Exchanges.

Maximum rates of interest fixed on savings banks and fixed deposits, etc.

16th March.—Sale of spirituous liquors limited to two-thirds that of 1941.

18th March.—Appointment and arrival in Australia of General Douglas MacArthur as supreme Commander of Allied Forces in South-West Pacific Area.

23rd March.—Committee reported to Treasurer, recommending scheme for a single uniform tax to replace all Commonwealth and State taxes on income.

Regulations gazetted providing for control of cash orders and hire purchase agreements.

25th March.—National Security Regulations gazetted constituting Women's Employment Board.

26th March.—Land Transport Board constituted and Director-General of Land Transport appointed to provide for the effective control of rail and road transport.

Order published that on and after 31st March, 1942, all employers must obtain consent of man-power authorities before engaging labour.

28th March.—Rationing of tea introduced providing for 1 oz. per week for each person over 9 years of age.

29th March.—Daylight saving ceased at 2 a.m.

14th April.—Regulations gazetted providing for the establishment of a Civil Constructional Corps.

Order issued requisitioning earth-moving plant.

16th April.—Prices Regulation Order No. 666—Gross profit margins of all goods pegged at the amounts in money ruling on 15th April, 1942.

23rd April.—Regulations gazetted to set up a Central Cargo Control Committee to provide for the orderly and expeditious disposal of goods arriving by sea and to facilitate the speedy loading and discharging of ships.

28th April.—Australian Food Control Council established as supreme authority for advising Government on all vital aspects of the supply of food for Service and civil needs.

1st May.—Sales tax rates of 10 and 20 per cent. increased to 12½ and 25 respectively and the 5 per cent. rate abolished.

5th May.—Allied Supply Council formed.

12th May.—Order issued restricting sales of clothing to 75 per cent. of average weekly sales during 1941 as from 11th May, 1942.

14th May.—Rationing Commission to administer rationing in Australia set up under regulations gazetted.

22nd May.—Announced that British Government had agreed to an increase of 15 per cent. in the price to be paid for the 1942–43 wool clip.

3rd June.—Uniform Tax Bill passed Senate after having passed House of Representatives.

4th June.—Premiers given power to adjust basic wage quarterly with Statistician's index-numbers, etc., if in accordance with State legislation.

12th June.—Clothing, etc. declared rationed goods, and orders issued setting up machinery for rationing and fixing clothing ration scale.

13th June.—Ration coupon books issued.

16th June.—Clothes rationing commenced.

22nd June.—Test of validity of Commonwealth uniform taxation scheme begun before Full High Court of Australia.

23rd June.—Order issued under Land Transport Regulations prohibiting interstate rail travel without a permit.

Second Liberty £35,000,000 War Loan oversubscribed by £7,373,000.

1st July.—Widows' Pensions Act in operation.

3rd July.—Tea rationed from 6th July, 1942, 8 oz. for 5 weeks.

22nd July.—Enemy male aliens between 18 and 60 years to register for national service.

23rd July.—Full High Court upheld Commonwealth uniform taxation legislation.

1st August.—Regulations under National Security Act gazetted constituting Pool Petroleum Pty. Ltd.

11th August.—Loan programme of £7,328,000 for year 1942–43.

29th August.—Orders gazetted providing for rationing of sugar by coupons, 1 lb. per week from 31st August, 1942.

2nd September.—1942–43 Budget presented in Federal Parliament; estimated expenditure over £583,000,000.

17th September.—Regulations gazetted prohibiting horse and greyhound racing on the first Saturday of each month and restricting such racing at other times.

24th September.—Black-marketing Bill introduced into House of Representatives.

27th September.—Daylight saving commences, clocks advanced by one hour from 2 a.m.

30th September.—Constitution Amendment Bill introduced into House of Representatives proposing additional powers relating to employment, transport, repatriation, water conservation, etc. for Commonwealth.

1st October.—Uniform Entertainments Tax commenced.

2nd October.—Regulations gazetted giving Treasurer control over real estate transactions.

7th October.—Federal Cabinet decided to grant subsidy to dairying industry of £2,000,000 a year to operate from 1st October, 1942.

17th October.—Ministry of Supply and Shipping created.

19th October.—Regulations gazetted limiting hours of work—

Employees under 18 years—48 hours per week.

Employees over 18 years—60 hours per week to 30th November, 1942.

56 hours per week after 30th November, 1942.

Australian Flour Industry Committee set up to control supply and distribution of flour.

23rd October.—Regulations gazetted restricting new manufactures.

28th October.—Restrictions placed on interstate transport of many classes of goods from 29th October, 1942.

30th October.—Australian Meat Industry Commission set up to secure the production of stock and supply of meat to meet needs of Defence Forces and civilians in Australia and to provide a surplus for the export to United Kingdom and fighting forces overseas.

20th November.—Appointment of University Commission announced.

24th November.—Constitutional Convention held at Canberra.

2nd December.—Constitutional Convention accepts draft bill for reference to State Parliaments for transfer of fourteen specific powers to Commonwealth Parliament.

4th December.—Regulations amended to further restrict sales of real estate.

14th December.—Tea ration increased to 8 oz. for each four-weekly period.

15th December.—Austerity War Loan (£100,000,000) closed—cash subscriptions totalled £82,667,000, conversion £21,783,000.

24th December.—Department of Post-War Reconstruction established.

29th December.—Revised order gazetted for control of employment of domestic servants.

1943.

12th January.—Superphosphate Industry Committee set up to control supplies of superphosphate.

28th January.—Speed limit of motor cars fixed at 40 miles per hour from 1st February, 1943.

3rd February.—A. P. Vlasov, first Soviet Minister to Australia, arrived in Sydney.

5th February.—Tasmanian Legislative Council rejects Powers Bill.

17th February.—Announced that Commonwealth Government had decided to place United States imports into Australia on "most favoured" tariff accorded foreign goods.

Income Tax Assessment Act passed—Increased rates of tax and provision for continuous instalments of tax from wage and salary earners.

20th March.—Regulations for control of production, distribution and consumption of meat issued.

28th March.—Daylight saving ceased 2 a.m.

8th April.—Powers Bill again rejected by Legislative Council of Tasmania.

13th April.—"Ceiling" prices of nearly all articles pegged at level of prices on 12th April, 1943. Prices to be kept at "ceiling" level by the payment of subsidies and other methods to meet unavoidable increases in prices.

Announced that Australia had a total of 790,000 gross enlistments in the three fighting services. Of Australia's 5,000,000 men and women between 14 and 65 years of age, 3,400,000 (or 68 per cent.) were in necessary war-time occupations.

15th April.—New egg control executive and advisory committee constituted to control production, distribution and consumption of eggs.

17th April.—All children between ages 14 and 16 years to register for purposes of rationing and to ensure suitable employment on leaving school.

20th April.—£101,806,000 raised for Third Liberty Loan (cash).

28th April.—Order issued to restrict retail sales of cooking appliances.

20th May.—Regulations for control of agricultural machinery issued.

25th May.—Appointment of Controller-General of Food.

5th June.—Second issue of ration coupons made in Australia.

7th June.—Household drapery and butter ($\frac{1}{2}$ lb. per week) rationed.

11th June.—Prime Minister announced a subsidy to dairy industry at rate of £6.5 million per annum from 1st April, 1943.

23rd June.—First regular airgraph mail arrived from Great Britain.

24th June.—Curtin Government survived by one vote censure motion on use of militia.

Statement by the Treasurer, estimating war expenditure in 1942-43 as £560,000,000 or £120,000,000 over original estimate.

30th June.—Number of branches of trading banks (including head offices) reduced to 2,724 at 30th June, 1943 from 3,508 in June, 1940.

2nd July.—Australian wool cheque for season ended 30th June, 1943 totalled £73,525,280—a record.

14th July.—Premiers Conference decided to establish National Works Council, composed of State representatives with Prime Minister as Chairman. The function of the Council will be to determine post-war works policy.

15th July.—Loan programme for States to be £9,473,000 for 1943-44.

19th July.—Regulations gazetted to set up a Salvage Commission to regulate, control, promote and conduct the collection, treatment, disposal and use of salvage material and service.

21st July.—Plan to reduce cost of living under new price stabilization scheme announced. Price of tea reduced by 1s. 2d. per lb. to pre-war price of 2s. 3d. per lb. (first grade). Price of potatoes fixed at 5 lb. for 6d. Sales tax on rationed clothing, etc. reduced from 12½ to 7½ per cent. Subsidies to be paid to maintain prices at present level. Subsidy to be paid to cover basic wage increase over June level.

12th August.—High Court upheld validity of Price-fixing Regulations.

21st August.—Federal elections held—sweeping victory for Labour Party in both Houses.

1st September.—Announced that Mortgage Bank Department of Commonwealth Bank would operate from 27th September, 1943.

21st September.—Second Curtin Government formed.

29th September.—Budget announced by Treasurer—War expenditure 1943-44 estimated at £570,000,000 compared with £562,000,000 in 1942-43. Revenue estimated at £345,000,000, an increase of £51,000,000.

9th November.—Fourth Liberty Loan (cash) subscriptions amount to £126,408,000.

6th December.—Federal Cabinet decided on the following programme to relieve housing shortage:—(a) Immediate relief programme depending on building resources available; (b) a target of 50,000 dwelling units to be completed or under construction at end of first year after the war; and (c) a long term programme and permanent housing plan extending by the third post-war year to 80,000 dwelling units a year.

23rd December.—Announced that Scottsdale (Tas.) had introduced the first free medical service in Australia. Local health rates increased to 6d. in £1 to provide benefits.

1944.

17th January.—Meat rationing commenced.

21st January.—Australia and New Zealand agreement signed at Canberra for mutual co-operation in matters of common interest.

25th January.—Conference of Premiers opened at Canberra. Commonwealth Government requested States to forego grants.

27th January.—Announced that about 50 clothing factories were operating in country towns.

National Works Council approved programme submitted by Co-ordinator-General of Public Works, including estimates for two years' post-war schedule of urgent and important public works to cost £200,000,000.

14th February.—Serious bush fires in Victoria—open cut at Yallourn Brown Coal Mine caught fire.

17th February.—Income Tax—Pay-as-you-earn—Parliamentary Committee's report tabled.

2nd March.—Announced that 1943 meat production reached 1,045,000 tons, substantially exceeding the year's target.

3rd March.—Government enacted Coal Production (War-time) Act vesting in a Commonwealth Coal Commissioner, subject only to a Minister of the Crown, powers including the assumption of direct control of mines, where "necessary for maintaining or increasing the production of coal".

17th March.—Minister for External Affairs (Dr. Evatt) announced that on 9th March a Mutual Aid Agreement was signed between Canada and Australia.

21st March.—Victorian Discharged Servicemen's Preference Act came into operation.

23rd March.—Commonwealth Parliament passed the Constitution (Powers) Amendment Bill.

27th March.—Prime Minister opened the First Victory Loan of £150,000,000.

29th March.—Pay-as-you-earn Income Tax Bill passed Commonwealth Parliament; to operate from 1st July, 1944.

31st March.—Pharmaceutical Benefits Bill passed House of Representatives.

Official opening Whyalla pipeline in South Australia.

19th April.—Enlistments to end December, 1943 in three services numbered 870,960, of whom 629,074 had volunteered for service at home or abroad.

6th May.—Announced that large rice growing project near Wakool, New South Wales, had been started and 4,200 acres planted.

10th May.—Dairy subsidy to be increased by £1,000,000 to £7,500,000. This would provide a basic subsidy of 3½d. per lb. on butter. In addition, a subsidy of 2d. per lb. would be paid during non-flush months on one-half of output for year, making average subsidy for year 4½d. per lb.

12th May.—New South Wales Premier announced that rice growing area at Wakool would be increased to 10,000 acres.

13th May.—First Victory Loan (cash) £150,000,000, oversubscribed by £549,000.

19th May.—Revised Censorship Order gazetted.

28th May.—Announced that President Roosevelt had invited Commonwealth Government to send delegation to Conference of United Nations to formulate an International Monetary Fund.

31st May.—First Australian built Beaufighter handed over to R.A.A.F.

4th June.—British and Canadian Parliamentary delegation arrived on tour.

5th June.—Butter ration reduced from 8 to 6 oz. per week.

Announced that emergency food stocks were to be liquidated in New South Wales and Victoria and partially liquidated in South Australia and Tasmania; scheme to continue in Queensland and Western Australia.

8th June.—Manufacture of torpedoes in Australia announced.

Full High Court allowed appeal by Commonwealth against decision of New South Wales Supreme Court, declaring Man Power Regulation 15 directing people to work for specified private employers, invalid.

9th June.—Announced that Mosquito fighter-bombers were being produced in Australia.

20th June.—Announced that Australia would receive 10,000 tractors from Britain and the United States. The Government would establish machinery pools to assist farm work.

30th June.—Navy Minister announced that four trawlers would be available soon for fishing.

15th July.—Hospital benefit scheme approved by Federal Cabinet. Proposed to subsidize all occupied beds in hospitals at 6s. per day. Means test in hospitals to be abolished.

11th August.—Interest rates on fixed deposits reduced.

16th August.—Fuel experts declare that coal position in Australia was so desperate that rationing would not solve the problem—certain industries would have to close down. Assent given to Commonwealth Life Insurance Act providing for supervision of life insurance companies and the regulation of life insurance business.

19th August.—Referendum held for alteration of Commonwealth Constitution relating to added powers; proposals defeated in four States.

25th August.—Australian Loan Council approved loan programme of States of £16,584,000 for 1944-45.

7th September.—Budget announced by Treasurer—War Expenditure estimated at £505,000,000, compared with £544,000,000 expended in 1943-44. Revenue estimated at £325,000,000, an increase of £16,000,000 over receipts for year 1943-44.

4th November.—Close of Second Victory Loan—cash subscriptions totalled £113,938,000, conversion £40,644,000.

16th November.—India's first High Commissioner arrived in Australia.

16th December.—Widespread bushfires in New South Wales causing considerable damage.

17th December.—Worst duststorms on record, sweeping over South-eastern Australia.

1945.

5th January.—Miners' Federation agreed to accept settlement terms of dispute which threatened general coalmining stoppage.

6th January.—Announced that Glen Davis (New South Wales) shale oil undertaking produced 4,000,000 gallons of crude oil and 1,000,000 gallons of petrol in 1944.

19th January.—National Works Council projects involving an expenditure of £153,546,000 approved by Federal Cabinet.

31st January.—British Empire Communications Mission arrived in Australia to discuss with Commonwealth Government future of communications within the Empire.

2nd February.—Appointments announced of Australian Minister to France, Minister at Large to South America, and new High Commissioner to Canada.

9th February.—Announced that six Australian-built 9,000-ton standard merchant vessels already commissioned and three others in course of construction.

14th February.—Estimated that 6,000,000 sheep lost in two years' drought.

15th February.—Conference opened at Lapstone, New South Wales, of Western Pacific section of U.N.R.R.A.

24th February.—Egg priority system and reduced meat ration scale introduced.

27th February.—Special committee of three Ministers appointed to deal with black-marketing, pillaging and economic racketeering.

7th March.—Commonwealth Parliamentary Committee recommended gratuity scheme for soldiers, involving about £63,000,000 to June, 1945.

24th March.—£9,000,000 Captain Cook Graving Dock at Sydney opened by Duke of Gloucester.

18th April.—Director-General of Land Transport (Sir Harold Clapp) submitted report on provision of standard railway gauge of 4 ft. 8½ in. in Australia, involving ultimate expenditure of about £200,000,000, including new locomotives and rolling-stock.

25th April.—First plenary session of the U.N.C.I.O. met at San Francisco.

27th April.—£100,000,000 Third Victory Loan over-subscribed by £7,279,000.

8th May.—British Prime Minister announced cease-fire in Europe. (Ratification of surrender of German forces signed in Berlin, 9th May.)

11th May.—Announced that Commonwealth and State Governments had provided nearly £1,000,000 drought relief in addition to £1,000,000 distributed as a free grant to cereal growers whose crops had failed last year.

30th May.—Commonwealth Government's "White Paper" dealing with transition from war-time to peace-time economy tabled in the House of Representatives.

31st May.—Announced that after 31st August, 1945, Australian notes above £10 denomination would not be legal tender.

2nd June.—First Lancastrian mail plane of new air service to England left Sydney. New distribution of ration books and clothing cards; occupation survey cards collected.

4th June.—Plans adopted by Federal Cabinet for housing programme involving the erection of 24,000 houses in year ended June, 1946.

10th June.—Announced that £2,000,000 in increased subsidies and drought relief would be paid to dairy industry.

12th June.—Australian gold price reached new record high level (£10 15s. 3d. per fine oz.)

13th June.—Commonwealth Rent Controller appointed, with power to determine rent of rooms and apartments.

20th June.—Re-establishment and Employment Bill, providing for re-establishment in civil life of members of Australian Forces, passed all stages in Senate.

26th June.—Old-age and invalid pensions increased by 5s. 6d. to 3s. 6d. per week.

27th June.—War Cabinet approved expenditure of £1,330,000 on buildings to provide technical college facilities for ex-service personnel.

1st July.—Unemployment and Sickness Benefits Act came into operation.

5th July.—Child Endowment increased by 2s. 6d. to 7s. 6d. per week.

Death at Canberra of Rt. Hon. John Curtin, P.C., Prime Minister of Australia.

9th July.—Announced that 130,000 men discharged from Australian Army since October, 1943.

10th July.—Announced by Commonwealth Treasurer that Australia's War Expenditure for 1944-45 was £460,000,000.

12th July.—Right Honorable J. B. Chifley appointed Prime Minister.

13th July.—New Federal Ministry sworn in and new portfolios created to deal with Housing and Immigration.

16th July.—M. Pierre Augé, first French Minister to Australia, arrived in Sydney.

30th July.—Announced that Civil Administration would be restored immediately in large part of Northern Territory, but Darwin would remain under martial control.

15th August.—Official announcement of end of war with Japan.

20th August.—Premiers Conference at Canberra. Decided to proceed with standardization of Australian railway gauges.

21st August.—Banking Act, to regulate banking, and Commonwealth Bank Act, to re-organize the Commonwealth Bank, proclaimed and operative.

22nd August.—President Truman announced termination of Lend-Lease.

2nd September.—Formal surrender of Japanese Empire signed in Tokyo Bay.

5th September.—Announced that Commonwealth Budget for 1945-46 would embody general reduction in Income Taxation of 12½ per cent. as from 1st January, 1946 (i.e. effective reduction for 1945-46, 6½ per cent.)

7th September.—Announcement by Right Honorable J. B. Chifley, Prime Minister and Treasurer, of £492,000,000 budget for 1945-46.

19th September.—Final Report of Commonwealth Housing Commission stated that 700,000 new dwelling units required within ten years to overcome housing shortage.

1st October.—General demobilization of about 500,000 men and women in armed forces commenced in all States.

23rd October.—Minister for External Affairs (Dr. H. V. Evatt) represented Australia at first meeting of Far East Advisory Council in Washington.

31st October.—Mr. J. F. Murphy, Secretary of Department of Commerce, appointed Chairman of newly established Commonwealth Wool Realization Commission.

2nd November.—Announced that export selling price of wool reduced by 6 per cent.

8th November.—Steelworkers, coalminers and printers on strike, involving 23,000 workers in New South Wales.

15th November.—£85,000,000 Fourth Victory Loan over-subscribed by £2,208,000.

22nd November.—Announced that supplies, services, facilities, etc. furnished to United States forces as reverse lend-lease amounted to £261,000,000 as at 30th June, 1945. American lend-lease exports to same date totalled £360,000,000.

3rd December.—Seamen's strike began in Sydney, Newcastle, Melbourne and Brisbane. Miners in New South Wales ceased work.

Drastic rationing of gas and electricity, and curtailment of rail services in New South Wales, Victoria and South Australia.

14th December.—Full Court held invalid the provisions of the National Airlines Act, which would have prevented the issue of new licences for services in competition with those of the Australian National Airlines Commission.

17th December.—Miners resumed work in most coal-mines in New South Wales. Meeting of Seamen's Union decided to work, with certain exceptions; ironworkers remained on strike.

18th December.—Mr. J. S. Duncan appointed Australian Minister to Chile.

20th December.—Australian Shipping Board established under National Security Regulations to give unified control of shipping.

APPENDIX.

(Recent information and returns which have come to hand since the various chapters were sent to press are given hereunder).

CHAPTER III.—GENERAL GOVERNMENT.

§ 2. Parliaments and Elections.

Commonwealth Elections, p. 60.—Particulars of the electors enrolled, and of those who voted for the election of the eighteenth Parliament on 28th September, 1946, are shown below. As all electorates were contested, the numbers enrolled and who voted were the same for the Senate and the House of Representatives.

COMMONWEALTH ELECTIONS.

Date.	Electors Enrolled.			Electors Who Voted.			Percentage of Electors who Voted.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
28.9.1946 ..	2,314,193	2,425,660	4,739,853	2,199,860	2,254,081	4,453,941	95.06	92.93	93.97

Commonwealth Referenda, p. 61.—On 28th September, 1946, concurrently with the voting in the general election, the proposals to alter the Commonwealth Constitution to provide the Commonwealth Parliament with power to legislate on Social Services, Marketing of Primary Products and Industrial Employment were voted on. One proposal only, that on Social Services, secured the majority of votes in a majority of States which is necessary for the amendment of the Constitution. Particulars of the voting in each State are shown below :—

SOCIAL SERVICES, ORGANIZED MARKETING OF PRIMARY PRODUCTS AND INDUSTRIAL EMPLOYMENT REFERENDUM, 28th SEPTEMBER, 1946.

State.	Social Services.			Organized Marketing of Primary Products.			Industrial Employment.			Total.
	Yes.	No.	In-formal.	Yes.	No.	In-formal.	Yes.	No.	In-formal.	
N.S. Wales ..	897,887	764,723	91,540	855,233	794,852	107,065	833,822	778,280	145,018	1,757,150
Victoria ..	671,967	528,452	60,955	624,343	567,860	60,171	609,355	560,773	91,246	1,261,374
Queensland ..	290,205	281,465	28,500	281,672	323,678	36,830	213,212	316,070	51,058	612,170
S. Australia ..	197,395	184,172	17,734	183,674	193,201	22,426	179,153	192,516	27,632	399,301
W. Australia ..	164,217	99,412	15,637	145,781	113,562	19,723	142,186	112,881	23,999	279,066
Tasmania ..	67,463	65,924	11,193	55,561	75,018	14,391	53,517	74,440	17,923	144,880
Total ..	2,297,934	1,927,148	228,859	2,116,264	2,068,171	269,506	2,066,275	2,035,860	357,806	4,453,941

§ 3. Administration and Legislation.

The Commonwealth Parliaments, p. 67. —The present Commonwealth Parliament is the eighteenth. Particulars of the dates of opening and dissolution of the seventeenth Parliament and of opening of the eighteenth Parliament are as follows :—

COMMONWEALTH PARLIAMENTS.

Number of Parliament.				Date of Opening.	Date of Dissolution.
Seventeenth	..	..	..	23rd September, 1943	16th August, 1946
Eighteenth	..	..	..	6th November, 1946	..

Governors-General and Ministries, p. 68.—Recent changes in the Commonwealth Governor-Generalship and Ministry are as follows :—

(a) GOVERNORS-GENERAL.

His Royal Highness PRINCE HENRY WILLIAM FREDERICK ALBERT, DUKE OF GLOUCESTER, EARL OF ULSTER AND BARON CULLODEN, K.G., K.T., K.P., P.C., G.M.B., G.C.M.G., G.C.V.O., General in the Army, Air Chief Marshal in the Royal Air Force, One of His Majesty's Personal Aides-de-Camp. From 30th January, 1945 to 11th March, 1947.

Major-General Sir WINSTON JOSEPH DUGAN, G.C.M.G., C.B., D.S.O. From 18th January, 1947 to 11th March, 1947. (Acting.)

Hon. W. J. McKELL. From 11th March, 1947.

(b) MINISTRIES.

(xxvi) CHIFLEY MINISTRY, 13th July, 1945 to 1st November, 1946.

(xxvii) CHIFLEY MINISTRY, 1st November, 1946.

(c) SECOND CHIFLEY GOVERNMENT, FROM 1ST NOVEMBER, 1946.

(The State from which each Minister comes is added in parentheses.)

DEPARTMENTS.	MINISTERS.
<i>Prime Minister and Treasurer</i>	<i>Rt. Hon. J. B. Chifley (N.S.W.)</i>
<i>Attorney-General and Minister for External Affairs</i>	<i>Rt. Hon. H. V. Evatt, LL.D., D.Litt., K.C. (N.S.W.)</i>
<i>Minister for Labour and National Service</i> ..	<i>Hon. E. J. Holloway (Vic.).</i>
<i>Minister for Air and Minister for Civil Aviation</i>	<i>Hon. A. S. Drakeford (Vic.).</i>
<i>Vice-President of the Executive Council</i> ..	<i>Hon. W. J. Scully (N.S.W.).</i>
<i>Minister for Supply and Shipping</i> ..	<i>Senator The Hon. W. P. Ashley (N.S.W.).</i>
<i>Minister for Defence, Minister for Post-war Reconstruction, and Minister in charge of the Council for Scientific and Industrial Research</i>	<i>Hon. J. J. Dedman (Vic.).</i>
<i>Minister for Transport and Minister for External Territories</i>	<i>Hon. E. J. Ward (N.S.W.).</i>
<i>Postmaster-General</i>	<i>Senator The Hon. D. Cameron (Vic.).</i>
<i>Minister for Information and Minister for Immigration</i>	<i>Hon. A. A. Calwell (Vic.).</i>
<i>Minister for the Interior</i>	<i>Hon. H. V. Johnson (W.A.).</i>
<i>Minister for Health and Minister for Social Services</i>	<i>Senator The Hon. N. E. McKenna (Tas.).</i>

<i>Minister for Commerce and Agriculture</i> ..	<i>Hon. R. T. Pollard (Vic.).</i>
<i>Minister for Works and Housing.</i> ..	<i>Hon. N. Lemmon (W.A.).</i>
<i>Minister for Munitions</i> ..	<i>Senator The Hon. J. I. Armstrong (N.S.W.).</i>
<i>Minister for the Army</i> ..	<i>Hon. C. Chambers (S.A.).</i>
<i>Minister for Trade and Customs</i> ..	<i>Senator The Hon. B. Courtice (Vic.).</i>
<i>Minister for the Navy</i> ..	<i>Hon. W. J. F. Riordan (Qld.).</i>
<i>Minister for Repatriation</i> ..	<i>Hon. H. C. Barnard (Tas.).</i>

STATE MINISTRIES, pp. 69 and 71.—Recent changes in the New South Wales and Tasmanian Ministries are as follows:—

NEW SOUTH WALES (6th February, 1947).

<i>Premier, Colonial Treasurer and Minister for Agriculture—</i>	<i>Minister of Justice and Vice-President of the Executive Council—</i>
THE HON. J. MCGIRR.	THE HON. R. R. DOWNING, M.L.C.
<i>Colonial Secretary and Minister for Mines—</i>	<i>Secretary for Public Works and Minister for Local Government—</i>
THE HON. J. M. BADDELEY.	THE HON. J. J. CAHILL.
<i>Minister for Housing—</i>	<i>Minister for Health—</i>
THE HON. C. R. EVATT, K.C.	THE HON. C. A. KELLY.
<i>Minister for Education—</i>	<i>Minister for Transport—</i>
THE HON. R. J. HEFFRON.	THE HON. M. O'SULLIVAN.
<i>Attorney-General—</i>	<i>Assistant Minister—</i>
THE HON. C. E. MARTIN.	THE HON. W. E. DICKSON, M.L.C.
<i>Secretary for Lands—</i>	<i>Minister for Conservation—</i>
THE HON. W. F. DUNN.	THE HON. G. WEIR.
<i>Minister for Labour and Industry and Minister for Social Welfare—</i>	<i>Minister for Tourist Activities and Immigration—</i>
THE HON. HAMILTON KNIGHT.	THE HON. F. J. FINNAN.

TASMANIA (10th December, 1946).

<i>Premier and Treasurer and Minister Administering Hydro-Electric Commission Act—</i>	<i>Minister for Education, Minister for Transport and Minister controlling the Tourist and Immigration Department—</i>
THE HON. R. COSGROVE.	THE HON. E. R. A. HOWROYD.
<i>Minister for Lands and Works—</i>	<i>Honorary Ministers—</i>
THE HON. E. BROOKER.	THE HON. J. McDONALD, M.L.C.
<i>Chief Secretary and Minister for Health—</i>	(Minister for Mines).
THE HON. A. J. WHITE.	THE HON. R. L. WORSLEY, M.L.C.
<i>Attorney-General—</i>	(Minister for Forests).
THE HON. R. F. FAGAN.	THE HON. E. E. REECE.
<i>Minister for Agriculture and Fisheries—</i>	(Minister for Housing).
THE HON. J. L. MADDEN.	

CHAPTER IV.—LAND TENURE AND SETTLEMENT.

§ 8. Settlement of Returned Soldiers and Sailors, p. 95.

1. War Service Land Settlement Scheme.—(i) *General.* At a Conference of Commonwealth and State Ministers in Canberra on 22nd August, 1945, certain proposals regarding the settlement on the land of discharged members of the Forces and other eligible persons were agreed on, and on 11th October, 1945 the War Service Land Settlement Agreements Act 1945, authorizing the execution by or on behalf of the Commonwealth of agreements between the Commonwealth and States, was assented to. In each State the proposals agreed to on 22nd August, 1945 were ratified by State legislation, and agreements between the Commonwealth and the individual States were signed during November, 1945.

The execution of agreements between the Commonwealth and New South Wales, Victoria and Queensland are substantially in accordance with the form contained in the first schedule of the Act, whereby each State (i) provides the capital required to acquire, develop and improve land for settlement and to make advances to settlers, (ii) makes a capital contribution in respect of each holding of an amount equal to one half of the excess of the total cost involved in acquiring, developing and improving the holding over the sum of valuations of the land and improvements, and (iii) bears the cost of State administration, one half of the cost involved in the remission of rent and interest during "the assistance period" and one half of any losses incurred by the State on advances made to settlers to provide working capital, to pay for and effect improvements, and to acquire stock, plant and equipment. The Commonwealth, in addition to bearing the cost of the other half of each of the liabilities of which the State bears half, also bears the cost of payment to each settler of a living allowance during the first year after allotment.

In the agreements with South Australia, Western Australia and Tasmania under the conditions of the second schedule of the Act, the States are to administer the scheme on behalf of the Commonwealth, which accepts responsibility for policy decisions and exercises general supervision. Each State bears the cost of State administration, and makes a capital contribution in respect of each holding equal to two-fifths of the excess of the total cost involved in acquiring, developing and improving the holding over the sum of valuations of land and improvements. The Commonwealth is responsible for a capital contribution of the remaining three-fifths of this excess cost, and for all the other items of expenditure connected with the scheme.

Land shall not be acquired at a cost in excess of the values ruling as at 10th February, 1942. Valuations are made by officers appointed by the Commonwealth and State, and regard is paid to the need for the proceeds of the holding to be sufficient to provide a reasonable living for the settler after meeting certain financial commitments. A condition of the agreements with South Australia, Western Australia and Tasmania, requires that holdings in those States be allotted on perpetual leasehold tenure, the general terms and conditions of lease to be approved by the Commonwealth. New South Wales and Queensland have voluntarily adopted this type of tenure.

(ii) *Principles of Operation.* The principles under which the Land Settlement Scheme operates are as follows:—

- (a) Settlement is to be undertaken only where economic prospects are reasonably sound; and the number of eligible persons to be settled is to be determined by the opportunities for settlement and not by the number of applicants;
- (b) Applicants are not to be selected as settlers unless satisfying a competent authority as to their eligibility, suitability, and qualifications for settlement under the scheme and their experience of farm work.
- (c) Holdings are to be of a size sufficient to enable settlers to operate efficiently and to earn a reasonable labour income;
- (d) A suitable eligible person is not to be precluded by reason only of lack of capital, but a settler is expected to invest in the holding a reasonable proportion of his own financial and other resources;
- (e) Adequate guidance and technical advice is to be made available to settlers through agricultural extension services.

(iii) *Method of Operation.* Detailed information regarding land selected by the State as suitable for settlement is submitted to the Commonwealth. After approval has been given to a proposal, the State proceeds with the sub-division of the property, the selection of settlers, and the improvement of the holdings to a stage where production can begin within a reasonable time. A living allowance may be granted to a settler during "the assistance period", ordinarily a period of one year after allotment. During this period no payment is required of rent or interest in respect of the holding, nor of principal or interest in respect of advances other than for working capital. Each soldier settler is granted a residential course in the "Principles of Farm Management" at a Government Training Centre. The course, which lasts eight weeks, provides an opportunity of gaining knowledge on aspects of farming not normally acquired in farming occupations.

(iv) *Summary of Operations to 31st March, 1947.* The table following shows particulars, for each State, of the land submitted, approved, allotted, deferred, under consideration and withdrawn, during the eighteen months to 31st March, 1947, the period that the scheme has been in operation:—

WAR SERVICE LAND SETTLEMENT TO 31st MARCH, 1947.

State	Land Approved.										Land Deferred for Investigation, Under Consideration, Rejected or Withdrawn.	
	Land Submitted.		As Suitable for Soldier Settlement. (a)		For Acquisition.		For Subdivision.		To be Allotted as Single Holdings.		Holdings Allotted.	
	Sub-missions.	Acres.	Acres.	Acres.	Properties.	Acres.	Holdings.	Acres.	Holdings.	Acres.	Holdings.	Acres.
N.S.W.—	No.	'000.	'000.	'000.	No.	'000.	No.	'000.	No.	'000.	No.	'000.
Western Division	72	2,518	1,524	1,524	..	..	..	1,524	49	847	33	995
Group Promotion	40	195	133	133	29	133	108	..	..	(b) 1	3	62
Other ..	50	805	677	452	18	174	179	..	..	28	31	127
Total, N.S.W.	162	3,518	2,334	2,109	47	307	287	1,524	49	876	67	1,184
Victoria ..	34	331	281	222	11	40	79	(c)	1	..	..	49
Queensland ..	17	99	81	81	3	4	8	..	..	..	..	17
South Australia ..	78	375	177	177	4	8	12	(d)	2	(d)	2	198
Western Australia ..	216	629	388	347	3	24	12	85	56	..	..	242
Tasmania ..	11	161	158	156	1	1	2	..	..	..	..	3
Total ..	518	5,113	3,419	3,092	69	384	400	1,609	108	876	69	1,693

(a) Includes particulars shown under next four headings. (b) 704 acres. (c) 320 acres. (d) 49 acres

2. *Loans and Allowances (Agricultural Occupations) Scheme.*—(i) *General.* The Director of War Service Land Settlement is empowered under the Re-establishment and Employment Act 1945, to grant loans and make allowances to eligible ex-servicemen needing financial assistance to enable them to engage in or resume agricultural pursuits. The Director has therefore concluded agreements with State authorities under which they administer the scheme in detail.

(ii) *Details of Loan Scheme.* The cost of financing the loans and the cost of administration are borne by the Commonwealth. An applicant must satisfy the lending authority (i) as to his ability and qualifications in regard to the form of primary production concerned, (ii) as to the suitability of his engaging in the occupation as a means of establishment or re-establishment in civil life, and (iii) as to the likelihood of repayment of the loan within a reasonable time. A loan not in excess of £1,000, or 90 per cent. of

the lending authority's valuation of the security offered, whichever is the less, may be made to any one eligible person for the purchase of, and improvements on, land, the acquisition of tools, live-stock, plant or equipment, the establishment of a co-operative business, the reduction or discharge of a mortgage, etc. Repayment of loans (which may be spread over 30 years) is required by periodical instalments of principal and interest, security being taken by mortgage, or lien etc. The maximum rate of interest payable is 3½ per cent. on an amount in excess of £250.

(iii) *Summary of Loan Operations to 31st March, 1947.* Particulars of applications received, approved, refused, etc., for each State, are shown below to 31st March, 1947 :—

LOANS (AGRICULTURAL OCCUPATIONS) TO 31st MARCH, 1947.

State or Territory.	Applications.				Loans Approved.			Loans Declined after Approval.	
	Re- ceived.	Ap- proved.	Refused or with- drawn.	Not yet Ap- proved.	Gross Amount Approved.	Net Approvals.		Applica- tions.	Amount.
						Applica- tions.	Amount.		
					£	No.	£	No.	£
N.S.W. ..	2,762	2,219	372	171	1,552,374	2,019	1,404,147	200	148,227
Vic. ..	1,802	871	696	235	578,059	860	570,669	11	7,390
Q'land ..	556	364	178	24	202,957	318	172,995	46	29,962
S. Aust. ..	750	332	158	210	287,117	363	278,295	19	8,822
W. Aust. ..	1,589	1,034	534	21	853,207	1,034	853,207	..	..
Tas. ..	432	161	86	185	105,374	161	101,274	..	4,100
Nor. Terr. ..	8	1	3	4	1,000	1	1,000	..	..
Total ..	7,909	5,032	2,027	850	3,580,088	4,756	3,381,587	276	198,501

NOTE.—To 31st March, 1947, cash advanced by Treasury was £2,136,000 and amount advanced to applicants, £1,877,503.

(iv) *Allowances (Agricultural Occupations).* These allowances are provided only in respect of the period during which the income derived by the ex-serviceman from the occupation concerned is considered inadequate. The rate of allowance is determined by the prescribed authority, and the maximum period of payment is twelve months from the date of entry into, or of resumption of, working occupation of the property.

The numbers of applications received, approved, rejected, etc., and the amounts paid, for each State, to 31st March, 1947, appear hereunder :—

ALLOWANCES (AGRICULTURAL OCCUPATIONS) TO 31st MARCH, 1947.

State.	Applications.				Allowances Censed.	Allowances Paid, Amount.
	Received.	Approved.	Rejected or withdrawn.	Not yet Approved.		
New South Wales ..	1,650	1,385	154	111	..	£ 143,840
Victoria ..	1,395	992	271	132	..	87,161
Queensland ..	1,257	893	169	195	300	93,000
South Australia ..	624	395	92	137	161	50,142
Western Australia ..	1,293	1,055	174	64	402	103,909
Tasmania ..	127	91	13	23	54	13,333
Total ..	6,346	4,811	873	662	917	481,385

NOTE.—To 31st March, 1947, cash advanced to bank by Treasury was £601,500.

CHAPTER V.—TRANSPORT AND COMMUNICATION.

A. SHIPPING.

§ 2. Oversea Shipping and § 5. Interstate Shipping.

Summary of Movements, pp. 108, 116 and 117.—The following tables summarize oversea and interstate shipping arrivals in the several States during each of the years 1944-45 and 1945-46 :—

OVERSEA AND INTERSTATE SHIPPING : VESSELS AND TONNAGE ENTERED.

State of Entry.	Steam.						Sailing.					
	Oversea.				Interstate.(a)		Oversea.		Interstate.(a)		Total Entered.	
	Direct.		Via Other States.				Direct and via other States.					
	Ves-sels.	Net Tounage.	Ves-sels.	Net Tonnage.	Ves-sels.	Net Tonnage.	Ves-sels.	Net Ton-nage.	Ves-sels.	Net Ton-nage.	Ves-sels.	Net Tonnage.
1944-45.												
N.S.W.	453	2,070,682	137	614,294	1,208	2,390,974	1	2,540	1	155	1,800	5,078,643
Vic. ..	140	597,985	122	601,211	1,062	1,786,614	7	1,129	81	11,836	1,412	2,998,773
Qld. ..	202	703,628	63	363,458	408	762,404	..	..	2	332	675	1,829,822
S. Aust.	62	208,391	39	189,285	557	1,467,134	..	..	16	3,650	674	1,868,460
W. Aust.	186	863,316	10	43,672	186	682,891	..	..	6	941	388	1,590,820
Tas. ..	8	36,164	13	61,184	636	621,152	..	..	103	13,770	760	732,270
Total	1,051	4,480,166	384	1,873,104	4,057	7,711,169	8	3,669	209	30,684	5,709	14,098,792

1945-46.

N.S.W.	452	2,124,431	196	962,272	1,110	2,438,266	1	2,540	2	321	1,761	5,527,830
Vic. ..	167	796,777	166	873,200	1,033	1,804,804	5	808	66	10,194	1,442	3,485,783
Qld. ..	193	703,653	99	546,011	303	587,103	..	..	..	..	595	1,836,767
S. Aust.	75	293,855	40	191,554	471	1,246,362	..	..	11	839	597	1,732,510
W. Aust.	242	1,290,385	7	33,609	213	1,041,614	..	..	8	3,658	470	2,378,266
Tas. ..	8	31,227	24	126,013	617	661,889	1	2,540	78	11,505	728	833,179
N. Terr.	3	10,676	..	..	6	20,488	..	..	..	..	9	31,164
Total	1,140	5,260,004	532	2,732,664	3,758	7,800,526	7	5,888	165	26,517	5,602	15,825,599

(a) Includes oversea vessels on interstate voyages.

§ 6. Tonnage of Cargo.

Oversea and Interstate Cargo, pp. 119 and 120.—The tables hereunder show particulars of oversea and interstate cargo discharged in and shipped from each State during each of the years 1944-45 and 1945-46:—

TONNAGE OF CARGO DISCHARGED AND SHIPPED.

State.	Discharged.				Shipped.			
	Interstate.		Oversea.		Interstate.		Oversea.	
	Tons Weight.	Tons Meas.	Tons Weight.	Tons Meas.	Tons Weight.	Tons Meas.	Tons Weight.	Tons Meas.
1944-45.								
	'000.	'000.	'000.	'000.	'000.	'000.	'000.	'000.
New South Wales ..	2,817	668	1,621	1,075	3,298	420	972	710
Victoria	2,338	299	1,082	422	713	446	321	542
Queensland ..	516	368	743	173	406	165	369	409
South Australia ..	1,145	190	249	74	2,484	139	779	67
Western Australia..	241	126	583	48	275	118	545	64
Tasmania ..	363	265	65	5	490	352	74	19
Total ..	7,420	1,916	4,343	1,797	7,666	1,640	3,060	1,811

1945-46.

	'000.	'000.	'000.	'000.	'000.	'000.	'000.	'000.
New South Wales ..	2,154	442	1,624	1,001	2,831	316	930	631
Victoria	2,075	226	1,263	407	581	256	304	468
Queensland ..	236	271	688	133	392	156	403	161
South Australia ..	1,123	178	324	78	1,754	132	382	78
Western Australia..	260	143	593	26	278	40	390	58
Tasmania ..	345	258	108	4	374	312	53	65
Northern Territory	3	4	..	..	6	1	..	9
Total ..	6,196	1,522	4,600	1,649	6,216	1,213	2,462	1,470

B. RAILWAYS.

§ 1. General.

Summary of Operations, p. 136.—The following table gives a summary of the operations of all Government railways open for general traffic during the years 1944-45 and 1945-46:—

GOVERNMENT RAILWAYS: SUMMARY OF OPERATIONS.

Particulars.	C'wealth.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	Aust.
1944-45.								
Mileage open (route)	miles	2,201	6,128	4,748	6,566	2,547	4,381	642
30th June, 1945	miles	2,201	6,128	4,748	6,566	2,547	4,381	642
Capital cost ..	£ mil.	17.9	153.1	52.9	40.4	31.0	26.6	2.9
Cost per mile ..	£	8,154	24,984	11,131	6,149	12,164	6,078	4,586
Gross revenue ..	£'000.	2,424	32,377	15,258	13,809	5,460	4,276	900
Gross revenue per train-mile ..	..	208. od.	168. 8d.	188. 8d.	158. 8d.	168. 6d.	138. 10d.	88. 2d.
Working expenses ..	£'000.	2,113	24,673	12,832	11,076	5,145	3,764	1,167
Working expenses per train-mile ..	..	178. 5d.	128. 8d.	158. 8d.	138. 3d.	158. 7d.	128. 2d.	108. 6d.
Net revenue ..	£'000.	311	7,704	2,426	2,733	315	512	267
Net revenue per train-mile ..	..	28. 7d.	48. od.	38. od.	28. 5d.	08. 11d.	18. 8d.	-28. 4d.
Interest ..	£'000.	356	5,350	1,903	1,502	1,072	1,050	96
Train-miles run ..	'000	2,426	6,38,900	16,337	6,17,574	6,618	6,171	2,201
Passenger journeys	'000	473	254,099	195,698	38,962	24,820	18,099	3,201
Goods, etc. carried	'000 tons	381	18,793	8,064	6,240	3,476	2,904	924

1945-46.

Mileage open (route),	miles	2,201	6,128	4,748	6,566	2,547	4,381	642	27,213
30th June, 1946	miles	2,201	6,128	4,748	6,566	2,547	4,381	642	27,213
Capital Cost ..	£ mil.	18.7	155.0	53.3	40.7	30.6	26.8	3.1	4330.0
Cost per mile ..	£	8,219	25,290	11,225	6,197	12,032	6,106	4,779	12,125
Gross revenue ..	£'000	1,565	32,113	14,675	11,916	4,871	4,107	928	70,175
Gross revenue per train-mile ..	..	178. 3d.	168. 11d.	178. 11d.	158. 3d.	158. 4d.	138. od.	88. 4d.	168. 2d.
Working expenses ..	£'000	1,502	24,934	12,531	10,425	5,107	4,027	1,209	59,735
Working expenses per train-mile ..	..	168. 7d.	138. 2d.	158. 4d.	138. 4d.	168. 1d.	128. 9d.	108. 10d.	138. 9d.
Net revenue ..	£'000	63	7,179	2,144	1,491	- 236	80	- 281	10,440
Net revenue per train-mile ..	..	08. 8d.	38. 9d.	28. 7d.	18. 11d.	-08. 9d.	08. 3d.	-28. 6d.	28. 5d.
Interest ..	£'000	341	5,240	1,902	1,480	1,055	1,040	97	11,265
Train-miles run ..	'000	1,818	6,38,000	16,344	15,607	6,354	6,304	2,229	86,656
Passenger journeys	'000	347	267,423	196,118	38,199	23,119	17,136	3,414	545,756
Goods, etc. carried	'000 tons	276	16,885	7,229	5,758	2,970	2,728	880	36,726

(a) Includes Commonwealth proportion of Grafton-South Brisbane Line.

(b) Estimated

C. TRAMWAYS.

Summary of Operations, p. 152.—The following table is a summary of the operations of all electric tramways in Australia during the years 1944-45 and 1945-46:—

ELECTRIC TRAMWAYS: SUMMARY OF OPERATIONS.

Mileage open (route) 30th June.	Capital Cost.	Gross Revenue.		Working Expenses.		Interest.	Tram-miles Run.	Passenger Journeys.
		Total.	Per Tram-mile.	Total.	Per Tram-mile.			
Miles.	£'000.	£'000.	d.	£'000.	d.	£'000.	'000.	Mil.

1944-45.

603	27,156	11,205	30.81	8,420	23.03	790	87,756	1,069.7
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1945-46.

600	27,428	11,313	30.55	8,858	23.92	724	88,878	1,049.3
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F. MOTOR VEHICLES.

Motor Vehicles on the Register, p. 157.—Motor vehicles registered and licences in force at 30th June, 1945, and 1946; and gross revenue derived during the years 1944-45 and 1945-46 were as follows:—

MOTOR VEHICLES: REGISTRATIONS AND REVENUE.

(Excluding Defence Service Vehicles.)

State or Territory.	Motor Vehicles Registered at 30th June.					Drivers' and Riders' Licences in force at 30th June.	Gross Revenue Derived from—			
	Motor Cars. (b)	Commercial Vehicles. (c)	Motor Cycles.	Total.	Per 1,000 of Population at 30th June.		Vehicles Registration and Motor Tax.	Drivers' and Riders' etc., Licences.	Other Sources.	Total
1944-45.										
	No.	No.	No.	No.	No.	No.	£	£	£	£
N.S.W. ..	186,802	83,980	16,068	286,850	98.97	445,625	2,103,132	225,828	68,996	2,397,956
Vic.	141,249	94,110	19,820	255,179	126.81	353,584	1,514,679	88,402	86,187	1,689,268
Q'land ..	69,000	53,798	6,394	129,192	119.73	157,712	708,273	62,656	72,727	843,656
S. Aust. ..	59,196	25,121	7,484	91,801	145.92	117,310	525,697	67,487	13,703	606,887
W. Aust. ..	30,723	24,147	4,507	59,377	121.18	73,090	301,816	23,435	35,612	360,863
Tas.	17,064	6,959	2,815	26,838	108.29	29,128	188,814	14,564	23,077	226,455
Nor. Terr. ..	193	2,273	54	2,520	482.67	1,097	2,076	550	..	2,626
Aus. Cap. Ter.	1,555	573	97	2,225	151.95	3,043	10,137	1,454	133	11,724
Total ..	505,782	290,961	57,239	853,982	115.77	1,180,589	5,354,624	484,376	300,435	6,139,435
1945-46.										
	No.	No.	No.	No.	No.	No.	£	£	£	£
N.S.W. ..	192,335	98,245	20,492	311,072	106.36	518,644	2,278,547	267,446	99,726	2,645,719
Vic.	146,605	102,196	23,249	272,050	133.96	401,610	1,671,996	100,413	107,351	1,879,760
Q'land ..	71,003	63,694	8,627	143,324	131.34	188,564	808,748	77,174	86,371	972,293
S. Aust. ..	61,937	28,768	10,110	100,815	158.40	138,706	577,474	63,436	16,037	656,887
W. Aust. ..	31,408	28,668	6,799	66,875	135.35	89,141	327,188	29,007	40,692	396,887
Tas.	17,356	7,831	3,200	28,387	113.07	34,932	202,333	17,466	28,485	248,284
Nor. Terr. ..	337	3,023	103	3,463	659.62	2,553	5,564	952	..	6,516
Aus. Cap. Ter.	1,634	704	121	2,459	164.14	3,890	11,054	1,834	70	12,958
Total ..	522,615	333,129	72,701	928,445	124.65	1,378,040	5,882,844	557,728	378,732	6,819,304

(a) 1946 figures in brackets—excludes trailers 32,616 (38,312), road tractors, etc., 3,366 (3,933), and dealers' plates 1,608 (2,237). (b) Includes taxis and hire cars. (c) Includes lorries, vans, buses and utility trucks. (d) Includes vehicles registered as primary producers' vehicles.

New Vehicles Registered, p. 159.—New vehicles registered during the years 1944-45 and 1945-46 were as follows :—

NEW MOTOR VEHICLES REGISTERED.
(Excluding Defence Service Vehicles.)

Vehicles.	N.S.W.	Vic.	Q'land.	S.A.(b)	W.A.	Tas.	A.C.T.	Total.
1944-45.								
Motor Cars	267	496	35	30	41	26	4	899
Commercial Vehicles, etc.	2,518	(a) 2,351	1,265	592	597	331	..	7,654
Motor Cycles	105	86	2	25	192	1	..	411
Total	2,890	2,933	1,302	647	830	358	4	8,964
1945-46.								
Motor Cars	526	1,208	82	160	100	43	4	2,123
Commercial Vehicles, etc.	3,288	(a) 2,329	1,529	727	456	351	6	8,686
Motor Cycles	681	378	155	396	270	73	..	1,953
Total	4,495	3,915	1,766	1,283	826	467	10	12,762

(a) Includes vehicles registered as primary producers' vehicles.

(b) Excludes Northern Territory.

H. AVIATION.

Statistical Summary, p. 166.—The following table gives a summary of operations for Australia in 1944-45 and 1945-46 :—

CIVIL AVIATION IN AUSTRALIA.

Year.	Regis-tered Aircraft Owners. (a)	Regis-tered Aircraft. (a)	Licensed Pilots. (a).		Hours Flown.	Approx. Mileage.	Passen-gers Carried.	Weight of Goods Carried.	Weight of Mail Carried. (b)	Accidents.	
			Private.	Com-mercial.						Killed.	In-jured.
	No.	No.	No.	No.	No.	'000 Miles.	No.	'000 lb.	'000 lb.	No.	No.
1944-45	125	206	215	428	111,122	14,992	342,070	4,756	3,250	26	10
1945-46	182	349	320	1,019	152,140	21,538	522,157	10,260	2,773	44	1

(a) At 30th June.

(b) Includes gross weight of oversea mails.

NOTE.—Figures relate to civil operations of larger organizations only.

I. POSTS, TELEGRAPHS AND TELEPHONES.

§ 1. General to § 5. Telephones.

Summary of Operations, pp. 168-183.—The following table is a summary of the operations of the Postmaster-General's Department during the year 1944-45 :—

POSTMASTER-GENERAL'S DEPARTMENT : SUMMARY OF OPERATIONS, 1944-45.

State.	Gross Revenue.	Expenditure.	Postal Matter Handled.				Money Orders Issued.	Postal Notes Issued.	Telegrams Dispatched.	Telephones.	
			Letters, Cards.	Newspapers, Pac-kets.	Par-cels.	Registered Articles.				Lines Connected. (a)	Instruments Connected. (a)
	£'000.	£'000.	mil.	mil.	mil.	mil.	£'000.	£'000.	No.	'000.	'000.
N.S.W. ..	10,330	7,791	366.1	81.9	7.1	8.1	12,043	3,515	12,060	226	320
Vic. ..	8,030	6,389	269.1	50.5	5.1	4.7	5,906	2,502	8,330	182	264
Q'land. ..	4,784	3,541	131.1	24.4	3.5	3.1	4,803	1,978	7,865	73	107
S. Aust. ..	2,342	1,792	71.7	11.2	1.7	1.2	1,564	901	3,031	51	72
W. Aust. ..	1,682	1,301	56.3	11.0	1.2	1.0	1,723	457	3,362	29	43
Tas. ..	703	621	37.8	5.9	0.4	0.6	981	201	826	17	22
Aust.	27,871	27,389	932.1	184.9	19.0	18.7	27,020	9,554	35,474	578	828

(a) At 30th June, 1945.

(b) Includes £5,952,000 Central Office expenditure.

§ 6. Radio Telegraphy and Telephony.

Wireless Licences, p. 183.—The following table shows the number of each class of licence issued in each State and Territory at 30th June, 1945 and 1946 :—

NUMBER OF WIRELESS LICENCES.

Station Licence.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
30TH JUNE, 1945.									
Coast ..	1	1	6	1	5	3	1	..	18
Ship ..	68	77	12	9	1	..	..	..	167
Aircraft ..	3	21	9	7	4	..	..	..	44
Land ..	33	3	97	52	85	9	62	2	343
Broadcasting (a)	35	19	19	8	10	8	..	1	100
Broadcast Lis-teners ..	570,091	412,317	184,341	157,604	102,065	50,557	221	2,606	1,479,802
Portable ..	9	..	6	5	4	..	5	15	44
Special ..	150	297	70	14	47	10	..	1	589
Total ..	570,390	412,735	184,560	157,700	102,221	50,587	289	2,625	1,481,107
30TH JUNE, 1946.									
Coast ..	1	1	6	1	5	3	1	..	18
Ship ..	74	78	13	15	2	..	..	..	182
Aircraft ..	7	27	12	5	6	..	..	..	57
Land ..	40	5	103	54	92	9	67	2	372
Broadcasting (a)	35	19	19	8	10	8	..	1	100
Broadcast Lis-teners ..	573,107	415,785	191,186	164,497	106,529	51,992	227	2,757	1,500,080
Portable ..	12	2	6	6	4	..	7	16	53
Special ..	179	308	78	14	44	10	1	1	635
Total ..	573,455	416,225	191,423	164,600	106,692	52,022	303	2,777	1,507,497

(a) There are also 35 stations operated by the National Broadcasting Service, including 6 short-wave stations (Victoria, 4; Queensland, 1; Western Australia, 1).

CHAPTER VI.—EDUCATION.

§ 3. State Schools, § 4. Private Schools and § 8. Technical Education.

Returns for Year 1944, pp. 190, 193-5 and 205.—The following table gives a summary of State, Technical and Private schools in each State for the year 1944 :—

EDUCATION : SUMMARY, 1944.

Particulars.		N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	N. Ter.	Aust.
State Schools—									
Schools ..	No.	2,721	2,439	1,546	890	671	381	3	8,651
Teachers ..	"	11,202	9,722	4,343	2,666	2,077	1,184	6	31,200
Net enrolment ..	"	365,954	213,985	135,451	72,662	56,508	33,661	207	878,428
Average weekly enrolment ..	"	335,561	202,181	128,840	69,640	56,508	30,663	207	823,600
Average daily attendance ..	"	292,613	178,674	107,772	63,558	52,031	28,096	198	722,942
Net Expenditure—									
Maintenance ..	£'000	5,131	3,162	1,711	1,013	819	421	4	12,261
Buildings ..	"	409	177	102	104	78	62	3	935
Total ..	"	5,540	3,339	1,813	1,117	897	483	7	13,196
Technical Schools—									
Schools ..	No.	41	31	12	20	9	6	..	119
Teachers ..	"	1,645	1,804	206	350	194	174	..	4,373
Students ..	"	39,750	31,533	8,416	12,534	5,417	2,559	..	100,209
Total Expenditure ..	£'000	583	653	104	125	64	82	..	1,611
Private Schools—									
Schools ..	No.	722	502	219	148	154	61	1	1,807
Teachers ..	"	5,265	2,952	1,483	853	728	327	4	11,612
Enrolment ..	"	112,755	85,607	35,006	15,450	18,268	7,635	72	274,793
Average attendance ..	"	95,093	81,361	31,793	13,641	17,036	6,014	68	245,006

(a) Average weekly enrolment.

(b) Excludes students at Junior Technical Schools.

§ 6. Universities.

Teaching and Research Staff, Etc., pp. 197-199.—The following table gives a summary of the University statistics for the years 1944 and 1945 :—

UNIVERSITIES : SUMMARY.

Particulars.	University—						University Colleges.		Total.
	Sydney.	Melbourne.	Q'land.	Adelaide.	W.A.	Tas.	New England.	Canberra.	
Teaching and Research Staff—									
Professors ..	{ 1944 43	24	19	24	10	10	..	..	130
	{ 1945 45	27	16	24	12	11	..	..	135
Other ..	{ 1944 380	349	239	221	67	29	38	17	1,340
	{ 1945 398	326	199	228	71	45	42	19	1,328
Civilian Students	{ 1944 3,710	3,983	1,387	2,529	739	383	151	84	12,966
	{ 1945 4,408	4,224	1,631	2,763	719	433	183	104	14,405
Service Personnel (External)	{ 1944 672	769	402	227	94	24	..	..	2,188
	{ 1945 1,072	872	445	203	105	43	..	..	2,740
Commonwealth Reconstruction Training Students	{ 1945 395	356	148	121	48	28	2	23	1,121
Degrees Conferred	{ 1944 754	464	128	143	88	27	..	..	1,604
	{ 1945 669	494	114	190	87	34	..	..	1,588
Receipts—General Activities—									
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
Government Grants	{ 1944 188	116	45	78	39	18	20	5	509
	{ 1945 150	129	47	81	45	24	21	10	507
Total ..	{ 1944 347	231	94	145	53	23	32	5	930
	{ 1945 342	258	103	149	62	31	35	11	991
Extra Activities	{ 1944 92	140	31	44	35	8	..	2	352
	{ 1945 101	161	33	43	41	8	..	3	390
Expenditure—General Activities—									
Administration	{ 1944 24	21	10	6	3	3	4	1	72
	{ 1945 28	25	9	6	3	..	4	2	81
Teaching ..	{ 1944 215	156	67	100	37	15	11	3	604
	{ 1945 268	188	83	112	40	20	12	7	730
Total ..	{ 1944 284	238	97	143	51	23	32	5	873
	{ 1945 345	289	115	152	56	30	35	10	1,032
Extra Activities	{ 1944 68	123	23	36	26	7	..	2	285
	{ 1945 82	131	28	38	31	7	..	3	320

CHAPTER VII.—PUBLIC JUSTICE.

§ 1. Lower (Magistrates') Courts, § 2. Superior Courts and
§ 3. Civil Courts.

Convictions for Serious Crime, Etc., pp. 217, 219, 220, 223 and 225.—The following table gives a summary of convictions at Magistrates' and Superior Courts, and for drunkenness, petitions for divorce, nullity of marriage and judicial separations, and decrees made absolute for the years 1944 and 1945:—

MAGISTRATES', SUPERIOR AND CIVIL COURTS.

Particulars.		N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N. Ter. (a)	A.C.T.	Aust.
Convictions for serious crime at Magistrate Courts	1944	15,038	6,186	(a)	(a)					
	1945	15,768	5,211	3,509	1,465	2,841	655	40	77	29,811
Committals to Superior Courts	1944	2,631	1,617	(a)	(a)					
	1945	3,061	1,595	359	273	143	58	15	1	5,097
Convictions at Superior Courts	1944	1,050	792	(a)	(a)					
	1945	1,178	692	369	352	193	113	9	6	5,698
Drunkenness Convictions	1944	34,562	12,388	(a)	(a)					
	1945	43,561	10,443	7,399	3,985	4,120	291	38	62	62,845
Divorce—Petitions	1944	3,807	1,964	(a)	(a)					
	1945	4,198	2,108	229	203	99	73	20	4	2,498
Decrees made absolute (b)	1944	2,044	1,692	(a)	(a)					
	1945	3,129	1,759	719	497	588	115	4	9	5,668
				903	604	565	172	6	7	7,145

(a) Year ended 30th June following.

(b) Includes nullity of marriage.

CHAPTER VIII.—PUBLIC BENEVOLENCE, ETC.

B. THE LARGER CHARITIES OF AUSTRALIA.

§ 1. Public Hospitals (other than Hospitals for the Insane).

Number, Staff, pp. 235, 236.—The following table gives a summary of details relating to Public Hospitals in each State for the year 1944–45:—

PUBLIC HOSPITALS: SUMMARY, 1944–45.

Particulars.		N.S.W.	Vic.	Q'land.	S. Aust. (a)	W. Aust.	Tas.	Total.
Hospitals	No.	218	73	114	48	85	23	571
Patients treated during year	"	295,671	96,609	136,903	43,582	52,353	27,026	652,144
Inmates at end of year	"	12,101	5,148	4,857	1,848	1,941	1,108	27,003
Average daily resident	"	12,901	5,348	4,971	2,076	1,997	1,187	28,480
Revenue—		£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
Government aid	"	1,845	1,129	767	381	312	148	4,582
Fees	"	1,201	440	644	231	292	138	2,916
Public subscriptions	"	924	1,067	10	54	27	22	2,104
Total	"	4,201	2,841	1,684	739	661	318	10,444
Expenditure—								
Salaries and wages	"	2,189	1,065	875	339	319	168	4,955
Buildings	"	174	97	65	39	19	9	403
Total	"	3,974	2,053	1,766	735	652	317	9,497

(a) Year ended 31st December, 1944.

C. SOCIAL SERVICES BENEFITS.

§ 1. Invalid and Old-age Pensions, § 2. Child Endowment, § 3. Widows' Pensions and § 4. Maternity Allowances.

General, pp. 246-251.—The following table gives a summary of invalid and old-age and widows' pensions, child endowment and maternity allowances for the year 1945-46:—

SOCIAL SERVICES : SUMMARY, 1945-46.

Particulars.	N.S.W. (a)	Vic.	Q'land.	S. Aust. (b)	W.Aust.	Tas.	Aust.
Old-age and Invalid Pensions—							
Old-age No.	108,685	69,308	34,808	23,565	18,797	9,663	264,826
Invalid "	28,255	13,599	6,807	4,836	3,538	2,833	62,868
Amount paid in Pensions £'000	11,225	6,822	3,661	2,335	1,861	1,058	26,962
Child Endowment—							
Family claims in force .. No.	211,946	135,377	83,043	44,509	39,114	19,830	533,819
Endowed children "	375,395	229,982	156,426	75,175	69,325	39,239	945,542
Amount paid £'000	7,077	4,465	3,009	1,427	1,285	756	18,019
Widows' Pensions—							
Pensions in force No.	17,355	12,748	6,363	3,656	2,870	1,595	44,587
Children for whom pensions paid ..	7,096	3,565	2,446	1,082	891	627	15,707
Amount paid £'000	1,295	900	484	251	203	114	3,247
Maternity Allowances—							
Claims paid No.	60,730	40,991	25,281	13,736	9,912	5,796	156,446
Amount paid £'000	967	650	405	220	159	92	2,493

(a) Includes Australian Capital Territory.

(b) Includes Northern Territory.

§ 5. Commonwealth Unemployment and Sickness Benefits.

General, pp. 252-253.—The following table shows the number of persons in each State admitted to benefit during the year and on benefit at the end of the year 1945-46:—

UNEMPLOYMENT AND SICKNESS BENEFITS : PERSONS ADMITTED TO AND ON BENEFIT, 1945-46.

State.	Unemployment.		Sickness.		Special.		Total.		
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Persons.

ADMITTED TO BENEFIT, 1945-46.

N.S. Wales(a) ..	38,592	10,197	11,822	2,435	87	61	50,501	12,693	63,194
Victoria	2,632	63	8,246	1,923	21	45	10,899	2,031	12,930
Queensland ..	10,574	380	5,043	825	49	21	15,666	1,226	16,892
Sth. Australia(b)	9,470	1,486	3,674	604	54	10	13,198	2,100	15,298
W. Australia ..	3,879	158	2,848	657	24	16	6,751	831	7,582
Tasmania	308	5	1,545	280	7	41	1,860	326	2,186
Total	65,455	12,289	33,178	6,724	242	194	98,875	19,207	118,082

ON BENEFIT, 30TH JUNE, 1946.

N.S. Wales(a) ..	1,203	95	2,063	438	9	39	3,275	572	3,847
Victoria	564	15	1,387	403	2	27	1,953	445	2,398
Queensland ..	3,165	146	808	153	20	24	3,993	323	4,316
Sth. Australia(b)	324	2	609	109	7	8	1,000	119	1,119
W. Australia ..	1,239	37	445	134	15	10	1,699	181	1,880
Tasmania	81	2	256	55	3	32	340	89	429
Total	6,576	297	5,628	1,292	56	140	12,260	1,729	13,989

(a) Includes Australian Capital Territory.

(b) Includes Northern Territory.

The following table shows the amounts paid in respect of each class of benefit and the average amount paid per person admitted to each class of benefit in each State during 1945-46 :—

UNEMPLOYMENT AND SICKNESS BENEFITS : PAYMENTS, 1945-46.

State.	Unemployment.		Sickness.		Special.		Total.	
	Amount.	Average per Person admitted.	Amount.	Average per Person admitted.	Amount.	Average per Person admitted.	Amount.	Average per Person admitted.
	£	£	£	£	£	£	£	£
N.S. Wales(a) ..	275,205	5.7	198,943	14.0	1,068	7.2	475,216	7.5
Victoria ..	28,234	10.5	139,267	13.7	912	13.8	168,413	13.0
Queensland ..	108,138	9.9	76,306	13.0	624	8.9	185,068	11.0
South Australia(b)	73,226	6.7	53,076	12.4	206	3.2	126,508	8.3
Western Australia	36,440	9.0	34,818	9.9	654	16.4	71,912	9.5
Tasmania ..	3,827	12.2	23,459	12.9	809	16.9	28,095	12.8
Total ..	525,070	6.8	525,869	13.2	4,273	9.8	1,055,212	8.9

(a) Includes Australian Capital Territory.

(b) Includes Northern Territory.

CHAPTER X.—REPATRIATION.

§ 2. War Pensions and § 3. Service Pensions.

Number of Pensioners and Expenditure, pp. 270 and 272.—The following table shows the number of war and service pensioners and expenditure for the years 1944-45 and 1945-46 :—

WAR AND SERVICE PENSIONS : NUMBER AND PAYMENTS.

Particulars.	Place of Payment.							Total.
	N.S.W. (a)	Vic.	Q'land.	S. Aust. (b)	W.Aust.	Tas.	Oversea.	
War Pensions—								
Number .. { 1944-45	105,020	78,227	31,575	20,816	27,686	12,081	5,674	281,079
{ 1945-46	138,589	93,026	40,412	29,298	37,921	14,503	5,641	359,390
Amount Paid £'000 .. { 1944-45	4,068	3,245	1,292	852	1,053	551	336	11,397
{ 1945-46	4,875	3,640	1,466	1,050	1,265	624	338	13,258
Service Pensions—								
Number .. { 1944-45	4,019	3,293	2,119	1,255	1,343	537	..	12,566
{ 1945-46	4,203	3,402	2,184	1,389	1,403	508	..	13,089
Amount paid £ { 1944-45	199,535	169,716	113,817	66,651	72,158	27,089	..	648,996
{ 1945-46	253,274	206,276	141,965	85,803	86,339	31,223	..	804,880

(a) Includes Australian Capital Territory.

(b) Includes Northern Territory.

CHAPTER XII.—TRADE.

§ 3. Lend-Lease and Mutual Aid between Australia and the United States.

Agreement for Termination of Lend-Lease, p. 332.—On 8th June, 1946, the Prime Minister announced the signing of an agreement for the complete and final settlement of Lend-Lease and Reciprocal Aid. The most important features of the agreement are :—

- (i) In recognition of mutual war-time benefits received from Lend-Lease and Reciprocal Aid neither Government will make any payment to the other for Lend-Lease and Reciprocal Aid articles and services used to achieve a common victory.

- (ii) All Lend-Lease and Reciprocal Aid articles held by the respective Governments will remain in the possession of each, subject to the right to repossess articles held by the armed forces of the other Government—this right to be exercised only in exceptional circumstances and after consultation.
- (iii) Australia will pay to the United States £A.8,400,000 for the post-war values of certain machine tools and other items of capital equipment received under Lend-Lease, for certain Lend-Lease non-combat aircraft and spares remaining in Australia, and £A.2,000,000 of United States Army and Navy surpluses. Of the total payment, £2,200,000 will be in Australian currency for the acquisition of real estate, the construction of United States Government buildings, and the furtherance of cultural relationships of mutual benefit.
- (iv) All other financial claims between the two Governments arising out of the War, except for certain specified claims, will be waived.

§ 6. Oversea Trade.

Summary of Movements, pp. 345 and 346.—The table hereunder is a summary of the total overseas trade movements of Australia, in British and Australian currency values, during the year 1945-46:—

TOTAL OVERSEA TRADE : AUSTRALIA, 1945-46.

Item.	British Currency Values.	Australian Currency Values.
	£stg. '000.	£A. '000.
Merchandise—Exports	156,826	196,424
Imports	155,347	194,572
Commodity Balance	1,479	1,852
Bullion and Specie—Exports	21,490	26,864
Imports	1,434	1,796
Bullion and Specie Balance	20,056	25,068
Total Balance	21,535	26,920

§ 7. Direction of Oversea Trade.

Imports according to Country of Origin and Exports according to Country of Destination, pp. 348 and 350. The following table shows particulars of the values of total imports and total exports of Australia, including bullion and specie, according to countries of origin or of destination, for the year 1945-46:—

TOTAL OVERSEA TRADE, AUSTRALIA : COUNTRIES OF ORIGIN OR OF DESTINATION, 1945-46.

Country of Origin or of Destination.	Imports.	Exports.
	£stg. '000.	£A. '000.
United Kingdom	58,827	80,145
Canada	6,942	3,772
Ceylon	5,056	6,950
India	10,037	18,045
Malaya (British)	6	6,514
New Zealand	3,170	8,033
Other British Countries	6,121	27,504
Total British Countries	90,159	150,963

**TOTAL OVERSEA TRADE, AUSTRALIA: COUNTRIES OF ORIGIN OR OF
DESTINATION, 1945-46—continued.**

Country of Origin or of Destination.	Imports.	Exports.
	£stg. '000.	£A. '000.
Belgium	55	7,461
China	84	885
France	22	10,391
Netherlands	12	671
Netherlands East Indies	62	1,808
Sweden	449	891
Switzerland	744	120
United States of America	41,846	37,340
Other Foreign Countries	20,839	12,758
Total Foreign Countries	64,113	72,325
Outside packages	2,509	..
Total	156,781	223,288

§ 10. Classified Summary of Australian Oversea Trade.

Imports and Exports in Statistical Classes, pp. 358 and 359.—The following table shows the values of total imports and total exports in statistical classes for the year 1945-46:—

TOTAL OVERSEA TRADE, AUSTRALIA : CLASSES, 1945-46.

Classes.	Imports.	Exports.
	£stg. '000.	£A. '000.
I. Animal foodstuffs, etc.	822	34,694
II. Vegetable foodstuffs, non-alcoholic beverages, etc.	7,728	37,187
III. Alcoholic liquors, etc.	298	2,009
IV. Tobacco, etc.	4,683	738
V. Live animals	213	124
VI. Animal substances, etc.	908	81,227
VII. Vegetable substances, etc.	6,521	1,015
VIII. Apparel, textiles, etc.	27,816	7,130
IX. Oils, fats and waxes	18,215	2,416
X. Paints and varnishes	884	151
XI. Stones and minerals, etc.	1,368	1,949
XII. Metals, metal manufactures and machinery	40,570	14,639
XIII. Rubber and leather, etc.	2,669	1,535
XIV. Wood and wicker, etc.	1,687	902
XV. Earthenware, etc.	1,853	443
XVI. Paper and stationery	7,169	584
XVII. Jewellery, etc.	1,262	244
XVIII. Optical, surgical and scientific instruments	2,063	474
XIX. Drugs, chemicals, etc.	6,214	2,994
XX. Miscellaneous	22,404	5,969
XXI. Gold and silver, and bronze specie	1,434	26,864
Total	156,781	223,288

CHAPTER XIII.—LABOUR, WAGES AND PRICES.

A. RETAIL PRICES AND PRICE INDEXES.

§ 7. Tabular Statements of Retail Price Index-Numbers.

All Items ("C" Series) Index p. 395.—The following table shows the "C" series index-number for the December quarters, 1945 and 1946 for each capital city and for the six capital cities combined, showing separate series for each of the four main groups of items:—

ALL ITEMS ("C" SERIES) RETAIL PRICE INDEX-NUMBERS (a) : CAPITAL CITIES.

(Base of each Group: Weighted average of Six Capital Cities, 1923-27 = 1,000.)

December Quarter.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Six Capitals. (b)
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GROUP I.—FOOD AND GROCERIES.

1945	..	1,029	1,055	963	1,001	1,051	1,062	1,030
1946	..	1,047	1,044	996	996	1,052	1,084	1,037

GROUP II.—HOUSING (4 AND 5 ROOMS) (c)

1945	..	1,043	973	863	892	886	934	975
1946	..	1,043	973	863	895	886	936	976

GROUPS I. AND II.—FOOD, GROCERIES AND HOUSING.

1945	..	1,032	1,021	922	957	984	1,010	1,007
1946	..	1,043	1,014	942	955	985	1,024	1,011

GROUP III.—CLOTHING.

1945	..	1,459	1,445	1,446	1,433	1,423	1,447	1,448
1946	..	1,555	1,551	1,552	1,529	1,548	1,558	1,550

GROUP IV.—MISCELLANEOUS.

1945	..	1,163	1,158	1,133	1,213	1,139	1,099	1,161
1946	..	1,175	1,165	1,141	1,222	1,147	1,110	1,170

GROUPS I. TO IV.—ALL ITEMS OF HOUSEHOLD EXPENDITURE.

1945	..	1,147	1,137	1,074	1,106	1,107	1,120	1,129
1946	..	1,177	1,157	1,110	1,128	1,136	1,155	1,156

(a) The index-numbers given in the separate parts of the table cannot be compared with each other in order to show the relative cost of food and groceries, housing, etc., since the cost in 1923-27 in each group or combination is made equal to 1,000. (b) Weighted average. (c) The rent index-numbers measure the proportionate rise and fall in the average weekly rentals paid for houses of four and five rooms taking corresponding houses throughout. See footnote (b) on page 389.

B. WHOLESALE PRICES AND PRICE INDEXES.**§ 1. Melbourne Wholesale Price Index.**

Index-numbers, p. 402.—The table hereunder gives the index-numbers for each group, and for all groups combined, of those commodities included in the series for the years 1945 and 1946:—

INDEX-NUMBERS (a) : MELBOURNE WHOLESALE PRICES.

(Base of each Group: Year 1911 = 1,000.)

Year.	I. Metals and Coal.	II. Wool, Cotton, Leather, &c.	III. Agri- cultural Pro- duce, &c.	IV. Dairy Pro- duce.	V. Gro- ceries.	VI. Meat.	VII. Build- ing Ma- terials.	VIII. Chemi- cals.	All Groups.
1945 ..	2,270	1,960	2,259	1,726	1,967	2,560	3,770	2,527	2,228
1946 ..	2,262	2,062	1,950	1,722	1,977	2,589	3,772	2,624	2,163

(a) Figures are not directly comparable horizontally.

§ 2. Basic Materials and Foodstuffs.

Index-numbers, p. 403.—Index-numbers for each group of commodities and for all groups combined for the new index of wholesale prices of basic materials and foodstuffs are shown below for each of the twelve months and year 1945-46:—

INDEX-NUMBERS (a) : BASIC MATERIALS AND FOODSTUFFS.

(Base of each Group: Average 3 years ended June, 1939 = 1,000.)

Period.	Metals and Coal.	Oils, Fats and Waxes.	Tex- tiles.	Chemi- cals.	Rubber and Hides.	Build- ing Ma- terials.	Food- stuffs and To- bacco.	Goods princi- pally Im- ported. (b)	Goods princi- pally Home Pro- duced.	All Groups.
1945-46—										
July ..	1,305	1,609	1,502	1,410	1,398	1,758	1,347	1,793	1,259	1,417
August ..	1,303	1,609	1,508	1,410	1,398	1,758	1,349	1,797	1,259	1,418
September ..	1,303	1,566	1,508	1,410	1,398	1,758	1,353	1,791	1,257	1,415
October ..	1,303	1,566	1,489	1,417	1,398	1,758	1,348	1,802	1,249	1,411
November ..	1,303	1,566	1,496	1,417	1,398	1,758	1,332	1,778	1,246	1,404
December ..	1,303	1,566	1,507	1,417	1,398	1,758	1,328	1,778	1,244	1,399
January ..	1,302	1,566	1,511	1,417	1,398	1,762	1,331	1,783	1,244	1,403
February ..	1,302	1,566	1,515	1,417	1,398	1,769	1,328	1,768	1,249	1,403
March ..	1,300	1,566	1,515	1,418	1,398	1,769	1,348	1,786	1,257	1,413
April ..	1,300	1,519	1,540	1,418	1,398	1,783	1,370	1,773	1,274	1,420
May ..	1,300	1,519	1,579	1,418	1,398	1,783	1,370	1,774	1,275	1,421
June ..	1,300	1,519	1,544	1,418	1,398	1,783	1,367	1,766	1,275	1,419
Year ..	1,302	1,561	1,518	1,416	1,398	1,766	1,348	1,787	1,257	1,412

(a) Figures are comparable in the vertical columns but not directly comparable horizontally.
 (b) Represents only such imported commodities as are included in the wholesale price index. This index does not measure changes in price of imports generally.

D. WAGES.

§ 2. Rates of Wages and Hours of Labour.

Weekly Rates of Wage, pp. 410 and 412.—The following table shows for each State and Australia the weighted average nominal weekly rates of wage payable, and the index-numbers based thereon, for adult males and for adult females at 31st December, 1945 and 1946:—

WAGE RATES OF ADULT MALES AND FEMALES.

(Weighted average nominal weekly rates payable for a full week's work and index-numbers of wage rates.)

Date.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
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ADULT MALES—RATES OF WAGE.

	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
31st December, 1945	121 10	120 4	119 10	114 5	122 9	116 11	120 4
31st December, 1946	130 11	128 11	128 0	121 4	125 7	125 2	128 6

ADULT MALES—INDEX-NUMBERS.—(BASE—518. 3D.(a) IN 1911 =1,000.)

31st December, 1945	2,377	2,347	2,339	2,233	2,395	2,282	2,348
31st December, 1946	2,554	2,515	2,498	2,368	2,450	2,442	2,507

ADULT FEMALES—RATES OF WAGE.

	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
31st December, 1945	71 3	73 11	74 1	66 1	66 0	68 5	72 0
31st December, 1946	76 0	78 6	79 5	72 10	67 2	72 7	76 9

ADULT FEMALES—INDEX-NUMBERS.—(BASE—278. 2D.(a) IN APRIL, 1914 =1,000.)

31st December, 1945	2,623	2,722	2,726	2,431	2,428	2,517	2,650
31st December, 1946	2,799	2,889	2,923	2,679	2,472	2,673	2,821

(a) Weighted average for Australia.

§ 3. Basic Wages in Australia,

Current Commonwealth Basic Wage Rates, p. 424. The basic weekly wage rates for adult males, fixed by the Commonwealth Court of Conciliation and Arbitration for each Capital City and the six capitals, operative at 1st May, 1947, were as follows: Sydney, 1108. od.; Melbourne, 1078. od.; Brisbane, 1048. od.; Adelaide, 1038. od.; Perth, 1038. od.; Hobart, 1048. od.; Six Capitals, 1068. od. Female rates are generally 54 per cent. of male rates.

Current State Basic Wage Rates, p. 428.—The table below gives the current basic weekly wage rates declared by the various State tribunals, operative at 1st May, 1947:—

BASIC WEEKLY WAGE RATES FIXED BY STATE INDUSTRIAL TRIBUNALS.

State.	Basic Wage.		Date of Operation.	Family Unit (for Male Rate).
	Males.	Females.		
	£ s. d.	£ s. d.		
New South Wales ..	(a) 5 10 0	(a) 2 19 6	1.5.47	(b)
Victoria(c) ..	(5 7 0)	(2 18 0)	(1.2.47)	(c)
Queensland ..	(d) 5 8 0	3 3 6	18.4.47	Man, wife and three children
South Australia ..	5 2 0	2 17 0	7.1.47	" " " " "
Western Australia(e)	5 7 1	2 17 10	26.2.47	Man, wife and two children
Tasmania(c) ..	(5 4 0)	(2 16 0)	(1.2.47)	(c)

(a) Sydney, Newcastle, Port Kembla-Wollongong; Broken Hill—Males, £5 13s.; Females, £3 18s. od.; Elsewhere—Males, £5 7s.; Females, £2 18s. od. (b) Commonwealth Basic Wage operative—no defined family unit. (c) None declared, but rates shown are those of Commonwealth Court which are followed to a large extent. No defined family unit. (d) South-Eastern Division. Allowances are added for other Divisions:—Northern, 10s.; North-Western, 17s. 4d.; Mackay, 5s. 6d.; South-Western 7s. 4d. Half of these allowances are granted to females. (e) Metropolitan Area. Basic wage from 26.2.47 for Gold-fields Areas and other portions of State excluding the S.W. Land Division—Males, £5 15s. 4d.; Females, £3 2s. 3d.; and from 22.7.46 for Agricultural Areas and S.W. Land Division—Males, £5 6s. 6d.; Females, £2 17s. 6d.

E. EMPLOYMENT.

§ 1. Employment.

Wage and Salary Earners in Employment, p. 432.—The following table shows particulars of wage and salary earners in civil employment, excluding rural employment and females in domestic work in private homes, for the month of June, 1946:—

WAGE AND SALARY EARNERS IN EMPLOYMENT, JUNE, 1946.(a)

(Excluding Rural Workers, Domestic Workers in Private Homes, and Persons on paid Strength of Defence Forces.)

(Thousands.)

New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.(b)
MALES.						
605.8	412.4	181.6	127.9	90.2	46.4	1,473.1
FEMALES.						
246.7	193.1	70.4	47.9	34.4	16.8	611.4
PERSONS.						
852.5	605.5	252.0	175.8	124.6	63.2	2,084.5

(a) Subject to revision.

(b) Includes Australian Capital Territory and Northern Territory.

§ 2. Unemployment.

Unemployment of Members of Trade Unions, p. 436.—The following are the percentages of unemployment in each State for the eight quarters March, 1945 to December, 1946 and the years 1945 and 1946 :—

UNEMPLOYMENT OF MEMBERS OF TRADE UNIONS : PERCENTAGES.

Period.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
	%	%	%	%	%	%	%
1945—March Qtr.	1.5	0.8	0.5	1.2	1.0	0.7	1.1
June „ ..	1.5	0.8	0.6	1.5	1.1	0.8	1.1
Sept. „ ..	1.5	0.8	0.9	1.2	1.2	1.1	1.2
Dec. „ ..	1.5	1.0	0.8	1.3	1.5	1.6	1.2
Year ..	1.5	0.9	0.7	1.3	1.2	1.0	1.2
1946—March „ ..	1.5	1.3	0.8	1.6	1.5	1.7	1.4
June „ ..	1.6	1.1	0.9	1.4	1.6	1.6	1.3
Sept. „ ..	1.5	1.3	0.8	1.3	1.5	2.3	1.4
Dec. „ ..	1.5	1.3	1.0	1.1	1.6	2.3	1.4
Year ..	1.5	1.3	0.9	1.4	1.6	2.0	1.4

§ 3. Industrial Disputes.

Summary of Industrial Disputes, p. 441.—The following table shows particulars of industrial disputes in each State during the years 1945 and 1946 :—

INDUSTRIAL DISPUTES.

State.	Num-ber.	Estab-lish-ments In-volved.	Workpeople Involved.			Working Days Lost.			Esti-mated Loss in Wages £
			Di-rectly.	Indi-rectly.	Total.	New Dis-putes.	Old Dis-putes.	Total.	
1945.									
New South Wales	845	1,201	246,286	15,473	261,759	1,792,857	..	1,792,857	2,241,180
Victoria ..	34	34	29,162	65	29,227	50,920	288	51,208	49,628
Queensland ..	27	363	15,644	99	15,743	208,003	..	208,003	206,483
South Australia ..	13	14	3,810	16	3,826	28,614	300	28,914	27,768
Western Australia	16	25	3,158	644	3,802	23,371	9,120	32,491	35,239
Tasmania ..	10	11	1,572	..	1,572	6,168	..	6,168	7,146
Australia ..	945	1,648	299,641	16,297	315,938	2,109,933	9,708	2,119,641	2,567,444
1946.									
New South Wales	771	1,389	220,452	9,048	229,500	701,869	17,688	719,557	941,983
Victoria ..	35	326	74,217	2,600	76,817	505,585	1,705	507,290	543,655
Queensland ..	22	90	23,322	90	23,412	613,689	..	613,689	694,453
South Australia ..	18	33	8,941	1,286	10,227	29,014	..	29,014	31,525
Western Australia	11	18	2,704	3,659	6,363	69,634	..	69,634	68,329
Tasmania ..	8	15	1,675	..	1,675	6,646	..	6,646	7,056
Australia (a) ..	869	1,882	331,865	16,683	348,548	1,928,451	19,393	1,947,844	2,290,147

(a) Includes four disputes in Australian Capital Territory and Northern Territory.

CHAPTER XIV.—POPULATION.

§ 3. Distribution and Fluctuation of Population.

Growth and Distribution. pp. 456, 461.—The following table shows the revised population for each State and Territory at 31st December, 1939 to 1946:—

ESTIMATED POPULATION : REVISED.

31st December—	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
MALES.									
1939	1,391,343	931,405	532,404	299,250	246,409	122,863	4,231	6,877	3,534,782
1940	1,398,144	948,504	537,676	298,037	248,106	123,361	4,258	7,567	3,565,653
1941	1,404,179	965,681	539,424	301,908	248,230	121,894	4,075	7,471	3,592,862
1942	1,418,578	971,026	536,675	303,783	250,154	122,215	3,948	7,407	3,613,786
1943	1,426,160	980,169	545,109	306,073	250,521	122,810	4,020	6,966	3,641,848
1944	1,439,364	987,977	551,255	309,275	252,836	123,972	4,036	7,120	3,675,835
1945	1,454,290	996,339	559,227	312,994	254,548	125,461	4,051	7,253	3,714,163
1946	1,470,070	1,008,234	565,380	317,584	257,663	127,567	4,059	7,461	3,758,038
FEMALES.									
1939	1,371,438	954,843	486,723	299,655	222,420	119,661	1,981	5,792	3,462,513
1940	1,384,702	969,713	493,795	301,326	224,514	119,982	2,041	6,518	3,502,591
1941	1,396,310	984,306	500,020	305,479	225,613	119,643	1,492	6,908	3,539,771
1942	1,411,839	994,939	502,951	308,810	229,127	119,686	980	7,214	3,575,546
1943	1,425,063	1,005,747	511,774	311,991	231,155	120,860	1,113	7,214	3,614,917
1944	1,441,942	1,014,891	519,064	315,649	234,595	122,199	1,152	7,374	3,656,866
1945	1,458,693	1,024,291	527,401	319,615	237,470	123,953	1,191	7,551	3,700,163
1946	1,472,119	1,037,413	532,945	324,333	240,483	126,024	1,262	7,777	3,742,356
PERSONS.									
1939	2,762,781	1,886,248	1,019,127	598,905	468,829	242,524	6,212	12,669	6,997,295
1940	2,782,846	1,918,217	1,031,471	599,363	472,620	243,343	6,299	14,085	7,068,244
1941	2,800,489	1,949,987	1,039,444	607,387	473,843	241,537	5,567	14,379	7,132,633
1942	2,830,417	1,965,965	1,039,626	612,593	479,281	241,901	4,928	14,621	7,189,332
1943	2,851,223	1,985,916	1,056,883	618,064	481,676	243,670	5,133	14,200	7,256,765
1944	2,881,306	2,002,868	1,070,310	624,924	487,431	246,171	5,188	14,494	7,332,701
1945	2,912,983	2,020,630	1,086,628	632,609	492,018	249,414	5,242	14,804	7,414,328
1946	2,942,189	2,045,667	1,098,325	641,917	498,146	253,591	5,321	15,238	7,500,394

Mean Population, p. 462.—The following tables show the revised mean population figures for the calendar years 1939 to 1946 and the financial years 1939-40 to 1945-46. In calculating these figures the formula stated on page 462 has been reverted to, instead of the mid-year estimates previously used as the mean of years covering periods subsequent to June, 1943.

TOTAL MEAN POPULATION : CALENDAR YEARS.

Year ended 31st December—	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1939	2,748,191	1,881,853	1,013,710	596,371	465,530	238,097	5,999	12,092	6,961,843
1940	2,772,132	1,903,702	1,026,099	599,103	470,906	240,438	6,255	13,556	7,032,191
1941	2,790,446	1,936,002	1,037,142	601,906	473,609	239,762	6,274	14,699	7,099,840
1942	2,816,052	1,963,059	1,037,374	610,502	478,240	240,520	4,868	14,591	7,165,206
1943	2,838,426	1,977,329	1,049,570	615,257	480,125	242,329	5,076	14,202	7,222,314
1944	2,866,586	1,994,478	1,063,651	621,378	484,535	244,067	5,159	14,346	7,295,100
1945	2,897,526	2,011,878	1,078,530	628,913	489,803	247,803	5,217	14,643	7,374,313
1946	2,925,179	2,031,235	1,091,892	636,753	494,342	251,272	5,256	14,997	7,450,926

TOTAL MEAN POPULATION : FINANCIAL YEARS.

Year ended 30th June—	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1940 ..	2,760,580	1,889,853	1,020,449	598,375	468,506	239,290	6,213	12,859	6,996,125
1941 ..	2,782,223	1,920,198	1,032,220	599,237	472,756	240,349	6,298	14,235	7,067,538
1942 ..	2,800,908	1,952,333	1,037,694	606,988	475,461	239,761	5,564	14,539	7,133,262
1943 ..	2,828,240	1,968,980	1,042,179	612,562	479,633	241,168	4,933	14,530	7,192,225
1944 ..	2,851,952	1,986,273	1,057,099	618,183	481,681	243,507	5,135	14,200	7,258,120
1945 ..	2,881,714	2,003,118	1,070,691	624,997	487,382	246,251	5,189	14,495	7,333,837
1946 ..	2,912,365	2,020,716	1,085,904	632,647	491,915	249,445	5,233	14,802	7,413,027

§ 4. Elements of Increase.

Natural Increase and Total Increase, pp. 470 and 474.—The following table shows particulars of natural increase and of total increase during the year 1945 :—

POPULATION : NATURAL INCREASE AND TOTAL INCREASE, 1945.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Aust.
NATURAL INCREASE.(a)									
Persons ..	34,668	20,704	17,254	7,984	5,960	3,372	55	332	90,329
Rate(b) ..	11.96	10.29	16.00	12.69	12.17	13.61	10.54	22.67	12.25
TOTAL INCREASE.(c)									
Persons ..	31,677	17,762	16,309	7,685	4,587	3,243	54	310	81,627

(a) Excess of births over civilian deaths. (b) Excess of births over deaths per 1,000 mean population. (c) Includes recorded deaths of defence personnel.

CHAPTER XV.—VITAL STATISTICS.

§ 1. Marriages, § 2. Fertility and Reproduction, and § 3. Mortality.

Numbers and Rates, pp. 510, 517, 534, 535, and 539.—The following table shows State totals of marriages, births, deaths, and infant deaths for 1945, and totals for Australia for 1945 and 1946 :—

MARRIAGES, BIRTHS, DEATHS AND INFANTILE DEATHS.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia.	
									1945.	1946.
Marriages ..	25,283	10,501	9,905	5,321	3,788	1,868	48	108	62,822	79,490
Rate(a) ..	8.73	8.20	9.18	8.46	7.73	7.54	9.20	7.38	8.52	10.67
Births ..	61,662	41,200	26,713	14,033	10,672	5,785	90	405	160,560	176,406
Rate(a) ..	21.28	20.48	24.77	22.31	21.79	23.35	17.25	27.66	21.77	23.68
Deaths ..	26,994	20,496	9,459	6,049	4,712	2,413	33	73	70,232	74,661
Rate(a) ..	9.32	10.19	8.77	9.62	9.62	9.74	6.71	4.99	9.52	10.02
Infantile Deaths	1,889	1,155	795	394	315	159	5	5	4,717	5,116
Rate(b) ..	30.63	28.03	29.76	28.08	29.52	27.48	55.56	12.35	29.38	29.00

(a) Number per 1,000 of mean population. (b) Number of deaths under 1 year per 1,000 of live births registered.

CHAPTER XVIII.—PUBLIC FINANCE.

D. COMMONWEALTH AND STATE FINANCE.

Revenue and Expenditure, p. 729.—The following table shows particulars of Commonwealth and State revenue and expenditure during the year 1945-46. This information has been obtained from monthly returns of the several Treasury Departments and is not completely comparable with that shown in Chapter XVIII.—Public Finance, which is obtained from annual returns.

**COMMONWEALTH AND STATE CONSOLIDATED REVENUE FUNDS: REVENUE
AND EXPENDITURE, 1945-46.**

Government of—	Revenue.	Expenditure.	Surplus (+) or Deficit (—).
	£'000.	£'000.	£'000.
New South Wales(a)	71,915	71,524	+ 391
Victoria	35,191	35,185	+ 6
Queensland	24,775	24,760	+ 15
South Australia	(b) 16,343	16,343	..
Western Australia	(b) 14,408	14,408	..
Tasmania	(b) 3,933	4,034	— 101
Six States	166,565	166,254	+ 311
Commonwealth	390,780	390,780	..
Grand Total(c)	510,690	510,379	+ 311

(a) Excludes Main Roads Department, Road Transport and Traffic Fund, and recoups of interest, etc., from undertakings outside the Budget. (b) Includes additional financial assistance granted by the Commonwealth under the State Grants (Income Tax Reimbursement) Act 1942—South Australia, £1,101,000; Western Australia, £913,000; Tasmania, £119,000. (c) To avoid duplication on aggregating particulars for the Commonwealth and States, the grand totals exclude payments by the Commonwealth to the States for compensation in respect of uniform taxation, interest on States' debts and special grants, also pay-roll tax payments by States to the Commonwealth.

CHAPTER XIX.—PASTORAL PRODUCTION.

Live-stock and Wool Produced.—The following table shows the numbers of live-stock in each State at 31st March, 1945 and 1946, and the amount of wool produced in each State during the 1944-45 and 1945-46 seasons :—

LIVE-STOCK AND WOOL PRODUCED.

31st Mar.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Terr.	A.C.T.	Australia.
Pigs ('000), pp. 748 and 863.									
1945 ..	523.9	296.3	438.1	160.9	164.0	46.9	0.1	0.7	1,630.9
1946 ..	432.6	271.9	415.4	120.0	137.9	46.9	0.4	0.6	1,425.7
HORSES ('000.), p. 752.									
1945 ..	436.4	253.8	380.7	133.0	96.5	25.9	31.8	1.1	1,359.2
1946 ..	403.6	232.5	367.4	115.9	88.2	24.9	31.9	1.0	1,265.4
CATTLE ('000.), p. 755.									
1945 ..	3,144.7	1,903.1	6,623.1	391.3	852.6	224.7	984.4	9.3	14,133.2
1946 ..	3,116.8	1,827.1	6,542.2	374.1	833.6	216.3	960.0	7.9	13,878.0
SHEEP ('000.), p. 759.									
1945 ..	46,662.0	16,457.1	21,292.1	8,473.9	10,049.6	2,156.1	29.3	250.8	105,370.9
1946 ..	44,076.0	14,655.3	18,943.7	6,785.5	9,766.0	1,925.6	18.6	224.7	96,396.4
WOOL (AS IN THE GREASE) PRODUCED ('000 lb.) p. 765.									
Season—					(a)		(b)		
1944-45	448,683	177,143	178,719	106,708	86,841	16,324	308	1,763	1,016,489
1945-46	431,549	152,398	170,000	73,500	86,986	16,338	155	1,960	932,886

(a) For year ended previous December.

(b) Estimated.

(c) Subject to revision.

CHAPTER XX.—AGRICULTURAL PRODUCTION.

Principal Crops, pp. 780-782.—The table hereunder shows the area, production and average yield per acre of the principal crops in Australia during the 1944-45 and 1945-46 seasons :—

PRINCIPAL CROPS : AUSTRALIA.

Season.	Grain.			Hay.	Sugar-cane.	Cane sugar.	Total Crops.
	Wheat.	Oats.	Maize.				
AREA ('000 acres.)							
1944-45 ..	8,463	2,034	257	2,409	326	..	17,472
1945-46(a) ..	11,425	1,949	236	2,757	337	..	20,422
PRODUCTION.							
	'000 bush.	'000 bush.	'000 bush.	'000 tons.	'000 tons.	'000 tons.	
1944-45 ..	52,880	8,970	6,463	1,994	4,598	670	..
1945-46(a) ..	142,410	25,774	5,729	3,493	4,718	664	..
AVERAGE YIELD PER ACRE.							
	Bush.	Bush.	Bush.	Tons.	Tons. (b)	Tons. (b)	
1944-45 ..	6.25	4.41	25.15	0.83	20.31	2.96	..
1945-46(a) ..	12.46	13.22	24.30	1.27	20.02	2.82	..

(a) Subject to revision.

(b) Per acre of productive crop.

CHAPTER XXI.—FARMYARD, DAIRY AND BEE PRODUCTS.

Butter, Cheese, Bacon and Ham, pp. 860, 861 and 864.—Particulars of the total amounts of butter and cheese (factory and farm), and bacon and ham produced in each State during 1945-46 are shown below :—

BUTTER, CHEESE, BACON AND HAM PRODUCTION, 1945-46.(a)

N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	A.C.T.	Australia.
BUTTER (tons).							
34,946	50,539	45,787	8,532	5,926	4,314	3	150,047
CHEESE (tons).							
2,218	15,086	11,748	10,066	820	1,189	..	41,127
BACON AND HAM (tons).							
17,409	8,534	11,156	5,216	4,888	1,254	..	48,457

(a) Subject to revision.

CHAPTER XXV.—MANUFACTURING INDUSTRY.

Summary.—The table following gives a summary of the operations in manufacturing industries during 1944-45 and 1945-46 :—

MANUFACTURING INDUSTRY : SUMMARY.

Particulars.		N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
1944-45.								
1. Factories	No.	11,359	9,669	2,783	2,182	1,931	1,006	28,930
2. Hands employed (a)	"	314,678	257,637	64,135	65,472	29,146	19,511	750,579
3. Wages paid (b)	£	89,243,041	70,560,011	17,979,827	17,246,148	7,614,243	5,008,530	207,651,800
4. Value of fuel, etc. used	£	32,564,956	6,946,053	2,222,879	2,555,739	1,645,987	897,137	26,832,751
5. " materials used	£	215,219,002	158,098,951	59,593,548	35,284,903	17,134,744	11,557,523	496,888,671
6. " production	£	159,874,627	122,377,307	30,902,038	27,267,050	12,960,009	8,902,324	362,283,355
7. " output of factories	£	387,658,585	287,422,311	92,718,465	65,107,692	31,740,740	21,356,984	886,004,777
8. " land and buildings	£	81,058,876	57,808,861	13,589,055	16,877,449	7,654,187	5,491,679	122,530,107
9. " plant and machinery	£	73,039,252	58,571,064	18,134,011	17,955,288	8,254,231	7,963,214	183,917,060

1945-46. (c)

1. Factories	No.	12,287	10,195	2,807	2,395	2,280	1,082	31,046
2. Hands employed (a)	"	315,774	257,793	65,460	64,909	30,256	19,235	753,427
3. Wages paid (b)	£	87,647,460	70,499,214	18,011,966	16,789,409	7,883,814	5,006,511	205,838,374
4. Value of fuel, etc. used	£	12,206,611	6,952,997	2,298,019	2,854,757	1,835,677	904,011	27,052,102
5. " materials used	£	201,706,086	159,798,131	58,633,079	37,908,497	18,360,635	12,019,637	488,426,065
6. " production	£	153,179,489	122,192,875	30,269,653	25,468,614	13,826,527	9,195,657	354,132,815
7. " output of factories	£	367,092,216	288,944,003	91,200,751	66,231,868	34,022,839	22,119,305	869,610,982
8. " land and buildings	£	80,308,347	60,261,953	14,331,556	15,595,301	8,282,694	5,304,703	184,087,554
9. " plant and machinery	£	72,560,630	58,537,394	18,690,541	19,017,955	8,507,705	8,230,715	185,544,940

(a) Average over whole year; includes working proprietors.
working proprietors.

(b) Excludes amounts drawn by

(c) Preliminary; subject to revision.

CHAPTER XXVI.—MINERAL INDUSTRY.

§ 1. The Mineral Wealth of Australia.

Quantity and Value of Production, pp. 967, 968.—In the table hereunder particulars are given of the quantity and value of production in Australia of the principal minerals during the years 1944 and 1945 :—

MINERAL PRODUCTION : QUANTITIES AND VALUES, AUSTRALIA.

Year.	Coal.		Copper and Copper Ore.	Gold.	Iron-stone and Ore.	Lead.	Silver.	Silver-lead Ore, Concentrates.	Tin and Tin Ore.	Zinc and Concentrates.	All Minerals.
	Black.	Brown.									
QUANTITIES.											
	'000 tons.	'000 tons.	Tons.	Fine oz.	'000 tons.	Tons.	'000 oz.	Tons.	Tons.	Tons.	
1944	13,756	5,016	29,365	656,867	2,039	8,227	1,454	240,563	2,943	321,683	..
1945	12,854	5,445	25,850	657,212	1,529	6,302	1,224	205,805	2,594	280,893	..
VALUES (£'000.).											
1944	12,117	566	2,602	6,901	2,343	206	163	4,046	838	1,620	33,178
1945	11,661	641	2,285	7,031	1,756	158	165	4,605	759	1,481	32,341

CHAPTER XXVIII.—MISCELLANEOUS.

§ 10. Valuation of Australian Production.

Net Value of Production, p. 1092.—The following table shows particulars of the net value of production in each State of the various industry groups during the year 1944-45 :

NET VALUE OF RECORDED PRODUCTION IN STATES, 1944-45.

Industry.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
Agriculture ..	17,351	14,900	18,308	8,998	6,640	5,852	72,049
Pastoral ..	37,452	24,446	19,993	7,695	6,515	2,273	98,374
Dairying ..	14,137	14,672	11,377	3,456	1,798	743	46,183
Poultry ..	5,715	5,592	931	1,295	— 704	563	14,800
Bee-farming ..	228	121	28	113	24	3	517
Total, Rural ..	74,883	59,731	50,637	21,557	15,681	9,434	231,923
Trapping ..	2,727	2,520	75	211	98	576	6,207
Forestry ..	3,321	2,172	2,516	1,069	1,365	816	11,259
Fisheries ..	1,023	339	277	163	155	278	2,235
Mines and Quarries	13,137	1,548	2,770	2,935	4,185	2,256	26,831
Total, Non-rural	20,208	6,579	5,638	4,378	5,803	3,926	46,532
Total, All Primary	95,091	66,310	56,275	25,935	21,484	13,360	278,455
Factories ..	159,875	122,378	30,902	27,267	12,960	8,902	362,284
Total, All Industries	254,966	188,688	87,177	53,202	34,444	22,262	640,739

Secondary Industries Commission and Secondary Industries Division.

General.—The Secondary Industries Commission was appointed by the Commonwealth Government in October, 1943. Its functions are:—(i) To review the industrial development during the war, and especially to recommend alternative uses for Government war factories; (ii) generally to assist industry in transition from war production to peace-time production; and (iii) to advise the Government generally, as may be required, on post-war developments in Australian industry. The members of the Commission are:—Mr. J. K. Jensen, O.B.E., Chairman, Mr. F. T. Merrett, Deputy Chairman, and Messrs. W. Scott, S. F. Cochrane and H. F. Morris, Members. (See also § 22, Chapter XXVII.—Miscellaneous, Official Year Book No. 35, p. 937.)

As the activities of the Secondary Industries Commission developed, an administrative division was established within the Department of Post-War Reconstruction to implement the Government-approved policies which emanated from the Commission. The division (Director, Mr. H. P. Breen) initiates matters for policy discussion and acts also as an executive arm of the Commission. The Commission, including in this summary the Secondary Industries Division, has maintained continuous collaboration with the respective States through meetings and contacts with State Liaison Officers especially

appointed by the various State Premiers. In analysing transitional problems of industry the advisory panel system has been employed. Panels comprise representatives of the respective industries and unions and Government Chairmen, and include the Textile, Mining, Optical, Electric Motor, Refrigerator, Furniture, Leather, Stoves and Ovens, Radio and Telecommunication and Plywood Industry Advisory Panels.

Industrial expansion in Australia is welcomed by the Commonwealth Government, and decentralization of industry within Australia is a policy of Commonwealth and all State Governments.

Activities.—The task of conversion of the surplus Government-owned factories to alternative commercial use has been successfully undertaken. Some 198 leases and 13 sales of such factories have been effected to industrialists from within Australia and abroad. They will produce a wide range of products including textiles, engineering and electrical equipment, chemicals and miscellaneous goods. Based upon recommendations of the Secondary Industries Commission, an Industrial Finance Department of the Commonwealth Bank has been set up to assist industrial expansion. The Commission is represented on a special Taxation Reviewing Committee. Taxation concessions to industry, such as exemptions for visiting industrial experts and for scientific research, and tax remissions in respect of certain plant used for war production, have resulted. In addition to work done by the Advisory Panels, the Commission has concerned itself with matters affecting specific industries, e.g., the industrial chemicals, confectionery, flax, plastics, iron and steel, and engineering industries. The executive functions of the Secondary Industries Division include sponsorships, where relevant, for industrialists, or, alternatively, an interest on behalf of industrial growth in respect of essential plant and raw materials, internal transport, financial assistance, factory space, export quota problems, technical advice and assistance, taxation relief, increase in company capital structure, collaboration in respect of import licences, freight rates, reparation problems, and scientific and technical missions to Germany and Japan.

The emphasis in the Secondary Industries Division is on technical and commercial information, technical investigation and technical services to industry. The Division is concerned, in collaboration with other appropriate authorities, with the provision of research facilities for industry, in the setting of standards for manufactured goods—particularly those for export—and in providing adequate laboratory testing facilities to test goods against prescribed standards. It administers the Wool Consultative Council which brings together in Australia the many organizations concerned with the wool industry. Oversea investment in Australian industry has been especially encouraged. Firms from the United Kingdom and the United States of America, particularly, have indicated intentions to commence production in Australia. These known decisions involve an estimated nominal capital of about £19,000,000. The Division is willing to supply to overseas inquirers such technical and economic data as is practicable regarding industrial opportunities in Australia. A bureau within the Division assists industrial firms and organizations with the important industrial problem of materials handling, and a text book on the subject is in course of preparation.

Long-term Charter for Secondary Industries Division.—The following long-term charter for the Division has been authorized by the Commonwealth Government, viz.:—(i) to develop local resources of raw materials for industry; (ii) to study distribution and handling problems in order to reduce costs; (iii) to supervise decentralization of industry and regional developments; (iv) to encourage new industries and the expansion of present industries; (v) to allocate Government factories and buildings to industry; (vi) to take up with the Taxation Department the effect of taxation on secondary industries; (vii) to give aid to industries, particularly to small firms of war-time origin, by extending research and technical facilities and advising on production management and technical problems; (viii) to initiate and encourage technological research by public authorities and private agencies; and (ix) to supervise measures to maintain and raise the quality of Australian products and increase efficiency in industry by providing a national testing service and establishing a national trade mark.

GENERAL INDEX.*

Note.—This index is followed by a list of maps, graphs and diagrams, also a list of special articles, etc., in previous issues of the Official Year Book. Area, population, etc., of particular localities are indexed under the locality concerned. Where the subject matter extends continuously over more than one page the first page only is indexed.

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ROLAND WILSON, Commonwealth Statistician.